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SHILUKS.

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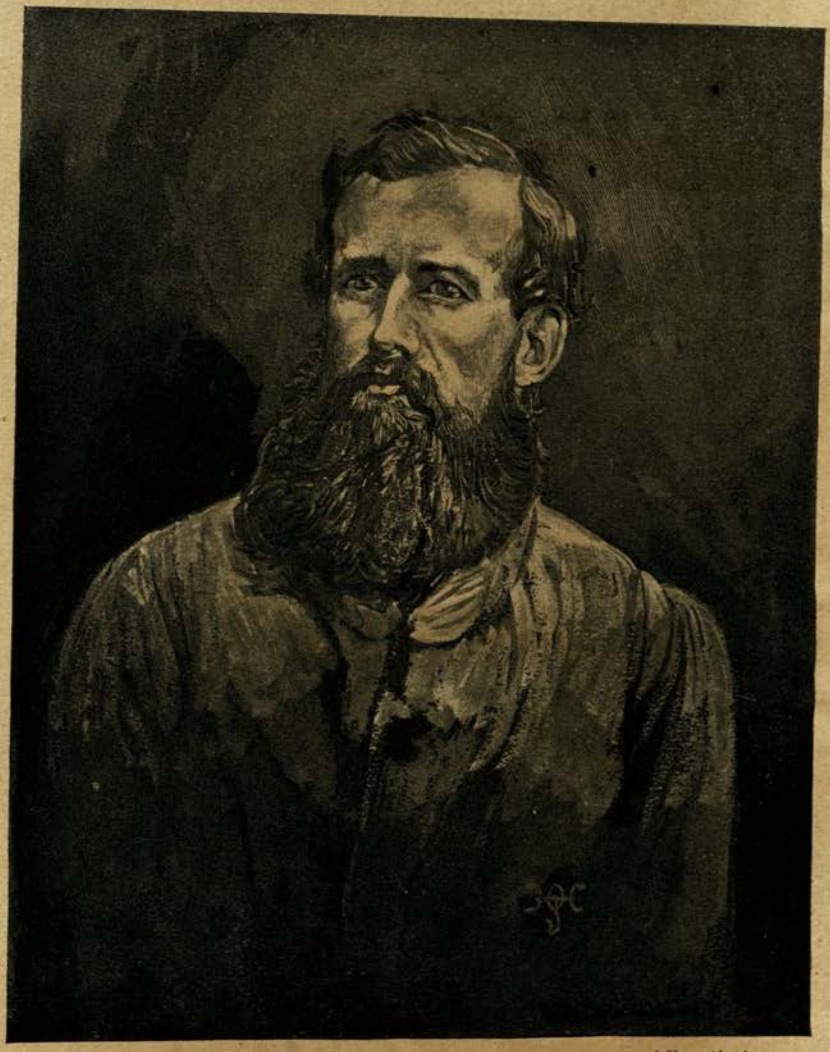

[*Frontispiece*

SPEKE (from a Drawing by the Author).

THE NILE QUEST

A RECORD OF

THE EXPLORATION OF THE NILE AND ITS BASIN

BY

SIR HARRY JOHNSTON, G.C.M.G., K.C.B.

(PRESIDENT OF THE AFRICAN SOCIETY)

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WITH ILLUSTRATIONS FROM DRAWINGS AND PHOTOGRAPHS BY THE AUTHOR AND OTHERS

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THE STORY OF EXPLORATION

EDITED BY

J. SCOTT KELTIE, LL.D., SEC. R.G.S.

THE NILE QUEST

BY

SIR HARRY JOHNSTON, G.C.M.G., K.C.B.

THE STORY OF EXPLORATION

PROBABLY few of the stories that tell of the achievements due to the curiosity of humanity have a wider or more lasting interest than that which is concerned with the exploration of the lands and seas, which give feature to the face of the earth. It is a long story, and would be longer still, if the men in the remote past had left any record of their wanderings. Even as it is, in the scanty and perplexing records left behind them by ancient Egyptians, Phœnicians, Carthaginians, Hebrews, and even Chinese, the story begins more than three thousand years ago and, so far as the pioneer work of exploration is concerned, may be taken to have practically concluded with the end of the nineteenth century. It seems, therefore, an opportune time to recount the leading episodes in this long record of incessant human effort, in a manner which will appeal to, and interest, all intelligent readers.

In the series of volumes, which will be issued under the general title "The Story of Exploration," it will be sought to make the narrative circle round the personality of the men who had the leading share in carrying on the adventurous work.

Beginning with the earliest journeys of which we have any record, the story will be carried down stage

by stage to the present day, and it is believed that, when complete, it will form what may be called a biographical history of exploration. While the work of geographical research in all parts of the globe will be seriously and adequately treated, the adventures incident to such research, which add human interest to it, will have due prominence given to them. In all cases it will be sought to obtain the co-operation of men who are recognized as authorities on the particular subjects with which they deal. Each volume will be profusely illustrated, the illustrations being selected for their appropriateness to the text, while every assistance will be given to the reader by means of carefully executed maps.

J. SCOTT KELTIE.

PREFATORY NOTE

WHEN the author of this book was composing his recent work on the Uganda Protectorate, he was led through the history of its discovery into the general consideration of Nile exploration, since it was in the search for the Nile sources that the territories now forming the Uganda Protectorate were laid bare to the gaze of the civilised world. But as anything like a detailed review of the exploration of the Nile basin by the Caucasian race would have unduly extended a book dealing more particularly with Uganda, he gladly took advantage of the suggestion made by Dr. Scott Keltie (Editor of this series) that these studies should be applied to the present volume, which is one of a series on the history of great geographical discoveries.

It is not for the author to say that his book on the Nile Quest will prove interesting; but he has striven to make it as accurate as possible, and he hopes it may be permanently useful as a faithful record of the names and achievements of those who solved the greatest geographical secret, after the discovery of America, which remained for the Caucasian's consideration.

H. H. JOHNSTON.

LONDON, 1903.

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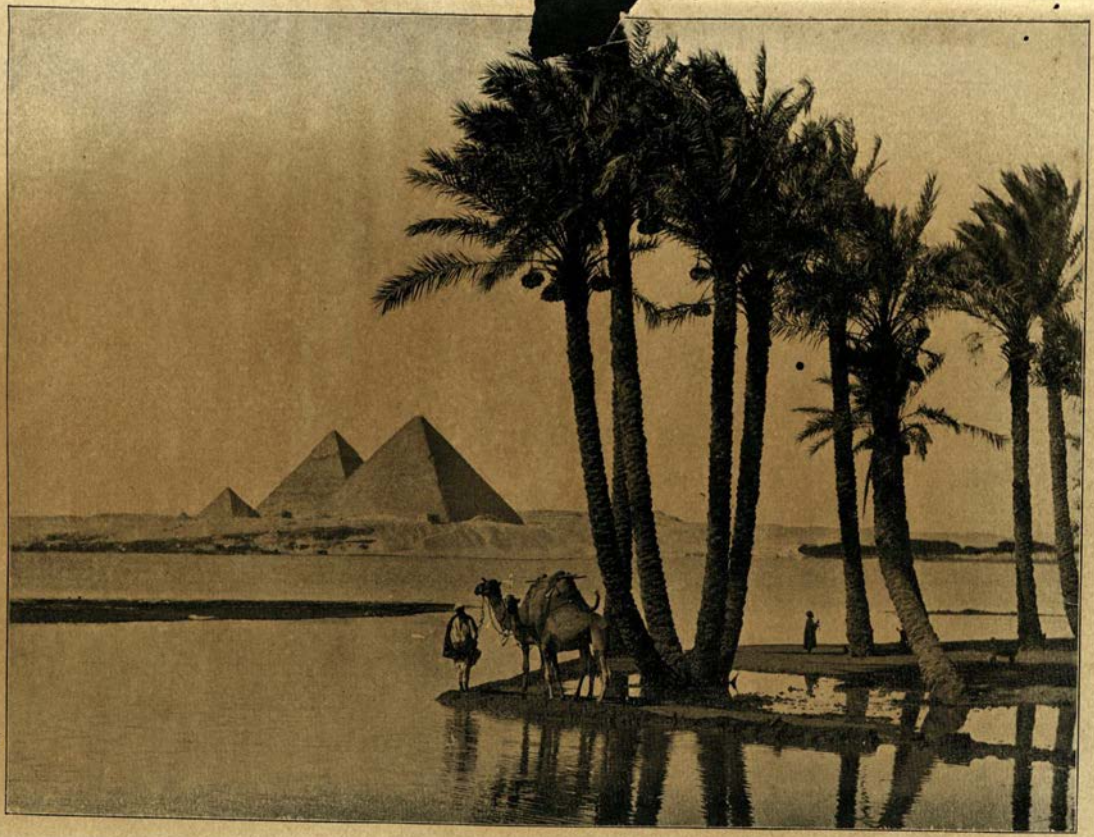

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THE NILE AND THE PYRAMIDS.

THE NILE QUEST

CHAPTER I

THE DAWN OF NILE EXPLORATION

THE first men who entered Egypt and travelled up the valley of the Nile came, almost unquestionably, from the east, and were part of those radiations from the central focus of humanity, India. It is possible that the first men who entered the valley of the Nile from this direction may have been of so primitive, simian, and undetermined a type — so "Neanderthaloid" — as not to belong definitely to any one of the three main species of humanity. At that distant time, however (let us say at the end of the Pleistocene period or beginning of the Quaternary Epoch), there was undoubtedly a land connection over the south as well as over the north end of the Red Sea, joining Arabia to Ethiopia as well as to Egypt; and across this bridge came many types of Asiatic mammals, also man, — possibly in the form of a low Negroid, a type represented to-day (much changed and modified, of course) by the Congo Pygmies and South African Bushmen. As regards the history of humanity, however, the valley of the

Nile has been divided into two very distinct parts. The southern half of its basin — in common with all Africa south of the Sahara and the fifteenth degree of north latitude — was peopled from the east, through southern Arabia, and by the Negro species in the main. Egypt proper and the adjoining regions of Arabia once lay within the domain of the Negroid Pygmies, but these indigenes were overwhelmed at a relatively early period by more or less "negrified" branches of the Caucasian stock coming from the direction of Syria or from Libya. Before the dawn of the historical epoch — say nine thousand years ago — an element in the population of Lower Egypt certainly showed Bushmen affinities. These steatopygous Bushmen were perhaps Proto-negroes, who may have branched off from the Nigritic stock when first that species reached the Mediterranean regions. This Bushman element in Egypt was for some time distinct, prior to the historical period, as the characteristic type of the servile class. Following on these dwarfish people came races bearing some slight resemblance to the Dravidians of India or the Brahuis of Baluchistan, — a somewhat Australoid stock which has left traces in Elam and around the shores of the Persian Gulf. Then came an aquiline type of nearly pure Caucasian stock, usually known by Egyptologists as the "Khafra" race. This probably arrived from Syria or Cyprus. But the men of the northern half of the Nile basin who fathered the principal, dominating type of ancient and modern Egyptian emigrated seem-

ingly from the direction of Galaland, Somaliland, or Abyssinia. In these countries, or originally perhaps in southern Arabia, there was formed a handsome race mainly of Caucasian stock, but which had mingled somewhat considerably with the Proto-negroes and Dravidians in Arabia and in northeast Africa, and so had acquired darker skins, and hair with more or less tendency to curl. The men of this race, like the modern Somali or Gala, and the inhabitants of southern Arabia, grew thin and wedge-shaped beards. Their lips were full, their noses straight and finely shaped. Their degenerate descendants continue to exist with but little altered facial type in the Danākil, Somali, and Gala of the present day; but in the northern half of the Nile valley they became in time the main stock of the Egyptian population. They also, it would seem, profoundly modified Negro Africa; for while on the one hand they started out by a series of race movements and conquests from the direction of Abyssinia to invade and mould Egypt, on the other (though more faint-heartedly) they advanced in a southwesterly direction to influence Negro Africa. They have formed aristocracies in the countries round the head-waters of the White Nile. Their influence on the Negro races has been widespread, permeating, even though faintly, in a handsome physical type and remarkable form of language, to Zululand on the south and perhaps westward across the continent to the Congo, the Cross River, and the Atlantic coast. This Hamitic race (as it is called

for want of a better word), which made its first home — and retains as its last — the highlands of Abyssinia and the plateaux and arid coastlands of Afar, Somaliland, and the Gala countries, has been the mainstay of Ancient Egypt, and also, together with its not distantly related Libyan brethren, the main human agent in saving the Negro from slipping back into the life of the anthropoid ape.

The valley of the Lower Nile, however, attracted many invasions from Europe and Asia, and from Libya (northwest Africa), where the dominant race was mainly of Iberian stock.[1] Dynasties rose and fell, often coincident with the invasion of Egypt by one race of conquerors after another. All these races (with the exception perhaps of the Hittites) belonged to various types of the Caucasian species. The Hittites possibly may have introduced a slight element of the Mongolian. In the earliest historical period Egypt and the lower valley of the Nile does not seem to have been markedly severed in its interracial relations from the far greater portion of the Nile basin which lies to the south of the fifteenth degree of north latitude. Egyptians penetrated no doubt without much difficulty up the Nile valley into and among the Negro tribes of the Central Sudan and Equatoria. The Ancient Egyptians may have had — must have had — a certain proportion of Negro or Negroid in their composition; beside the drop of Negro blood in their Hamitic

[1] A superior type of dark-haired white man allied with Circassian and Persian, and perhaps a direct development from the Dravidian.

ancestors, they must have absorbed the earlier Negroid population of their country and have imported and intermarried with Negro slaves. But they were fully Caucasian in the vivid interest they took in nature, and in their desire to depict all the striking forms of life around them, especially when such forms had anything of novelty. Prof. Flinders Petrie has, I believe, recently discovered a vase of immeasurable antiquity of the "Pre-Dynastic" period in Lower Egypt which is incised with a delineation of the Kudu antelope.[1] Other and later relics would seem to show that the Egyptians were acquainted with the chimpanzee of the Bahr-al-Ghazal regions, the Pygmies who once inhabited the western part of the Upper Nile basin, and many forms of the Tropical African fauna. But after these early historical times there appears to have come about a severance of relations between Egypt and the Upper Nile, though an overland route to the Land of Punt (Somaliland) either through Abyssinia or to the west of that elevated region nearly always existed unclosed to traffic. It is noteworthy that the Ancient Egyptians themselves do not appear ever to have penetrated up the main stream of the Nile much above its junction with the Bahr-al-Ghazal, no doubt owing to the obstruction of the sudd. Their traders may have trav-

[1] The Kudu, which is a tragelaph rather than an antelope, exists at the present day in the eastern part of the Egyptian Sudan, between Abyssinia and the Nile, and its remains are found fossil in Algeria. It may therefore have extended even within the historical period to near the shores of the Mediterranean.

elled into many parts of the Bahr-al-Ghazal region, and possibly even westward in the direction of Lake Chad, — westward, it may be, even across the western Sudan to the Niger, — yet there is not the slightest indication of their ever having journeyed up the main White Nile to the snow-mountains and the equatorial lakes. But they traded for thousands of years with the men of Punt (Somaliland) by sea and by land; and there is evidence to show that the peoples of Somaliland and Galaland (who had by repeated prehistoric invasions permeated the Upper Nile basin and left aristocracies behind them) traded anciently — say, in pre-Islamic times — southwestward to Lake Rudolf, and round Lake Rudolf to the present Turkana country, the neighbourhood of Mount Elgon, and even to the northeastern shores of the Victoria Nyanza.

The Ancient Egyptians seem to have known the main Nile as far as Khartum, and the Blue Nile up to its source in Lake Tsana. They exercised intermittently some kind of rule over the northern and western escarpment of Abyssinia, and are said to have sent criminals and political exiles to die of cold on the snowy heights of the Samien range. But they appear to have displayed little knowledge or curiosity concerning the ultimate source of the *White* Nile. No doubt the vast marshes and obstructions of the sudd which characterised the course of the Nile above its confluence with the Bahr-al-Ghazal, the generally hopeless nature of this country with its utter absence

of anything like high land, of minerals, or of a trading population, discouraged the practical-minded Egyptians from pursuing their researches in that direction. The Nile itself they called *Hapi*, which was also the name of the Nile God. It was sometimes spoken of as *Pi Yuma*, or "the River."[1] Its valley they called Atr, Atur, Aur (Modern Coptic = *Eiōr*).[2]

Several foreign dynasties ruled over Ancient Egypt, — Arabian and Libyan, — and for centuries at a time the energies of Egypt were mainly concentrated on domestic work under these foreign taskmasters or insurrections to expel the hated rulers. The original civilisation of Egypt rose rapidly to a great and wonderful height at a period which may be as remote, historically, as about seven thousand years ago. The main source of their civilisation seems to have been the introduction into the country of copper implements instead of and in addition to those of improved stone and flint manufacture. A wonderful development of pictorial art occurred concurrently with this brilliant rise in civilisation, and this early Egyptian art is of a realistic character from which all subsequent Egyptian pictorial or sculptured art has been a degeneration. At this time they easily

[1] This word is the origin of the Arabised *Fayūm*, a name given to the remains of a curious Nile reservoir, or backwater-lake, to the west of the Nile, in the Libyan Desert.

[2] The Biblical Yeôr. The Hebrews also called the Nile *Shikhor*, or the "Black." The earliest Greek name for the river and country is *Aiguptos* (the origin of "Egypt"). Later the name *Neilos* (Nile) was given to the river. This became the later Arab and European *Nilus*, *Nil*, *Nile*, etc. The origin of the Greek names *Aiguptos* and *Neilos* is unknown, but *Neilos* may be derived from the Persian word *nil* = blue.

impressed the Negroes of the south and the Libyans of the west with their power, and it was no doubt a matter of ease for Egyptian expeditions to penetrate into the Sudan from the countries of Abyssinia and Galaland. Gold and precious or gaudy stones were sought for in the east and southeast. Ivory, slaves, gums, perfumes, and strange beasts were obtained from the south and southwest. But no doubt Ancient Egyptians in their extensions of political or commercial influence introduced amongst the Negro tribes the knowledge of working metals. They also gave to them all those domestic animals and cultivated plants now existing in Tropical Africa which are not of a far later American or Indian origin (that is, introduced by the Portuguese and Arabs). By instructing the Negroes in this indirect manner in the arts of civilisation, and by spreading among them, no doubt, the use of metal weapons (which were probably as good as those used by the Egyptians themselves), there came a time when — to use a term once much employed by the European pioneer — the black men became "saucy" and objected to be harried, bullied, assessed, and exploited by the lordly Egyptian. The Negro race at this time, too, was becoming infiltrated by the same splendid stock — the Hamites — as had so largely composed the ruling population of Egypt. Here and there, no doubt, Negro tribes submitted willingly to be governed by Hamitic princes (as has been the case in Uganda and Unyoro), and, thus ruled, offered sharp opposition to Egyptian encroach-

ments. Egyptian interest, therefore, in the sources of the Nile died away, especially as in the revival of native Egyptian power and in the expulsion of foreign dynasties the thoughts of Egypt were all bent on the conquest and retention of Syria, Asia Minor, and Cyprus. These lands were more desirable in their eyes than the appalling wastes of the Sahara, the sun-smitten Sudan, the cold mountains of Abyssinia, or the fetid marshes of the Nile Negroes.

Almost older than the civilisation of Egypt was that of Mesopotamia, the reflex action of which on the Hamites of western Arabia and Abyssinia and on the inhabitants of the Nile Delta may have provoked the civilisation of Egypt. Empires rose, declined, fell, and were revived in the valleys of the Euphrates and the Tigris, and their influence over Arabia and Syria produced in those countries a stirring of commerce and invention and a desire for distant enterprise. The Phœnicians, who were originally an Arab people of the Persian Gulf, forced their way across the barren wastes of northern Arabia to the coasts of Syria, leaving behind, however, colonies of bold navigators at the northern end of the Persian Gulf. The Phœnicians, by the building of more seaworthy boats, and probably by the development of sails, soon traversed the Mediterranean in all directions, passed out through the Straits of Gibraltar, and even found their way to Britain long before Julius Cæsar. Their most noteworthy action in connection with Africa perhaps was the founding of Utica in 1100 B.C. and

Carthage in 820 B.C., these settlements being made at no great distance from each other in that projection of North Africa which constitutes the modern state of Tunis. The Carthaginian successors of the Phœnicians carried on the work of discovery along the north and west coasts of Africa until, in the memorable voyage of Hanno, they had penetrated as far south in that direction as the existing colony of Sierra Leone. The Phœnicians as bold navigators were enlisted in the service of one of the last Egyptian sovereigns of a real Egyptian dynasty, — Neku, son of Psametik I., who succeeded to the throne of Egypt in 611 B.C. Evidently by this time the overland routes to the regions of the Upper Nile and even to Somaliland had been closed by hostilities with the Ethiopians and Negroes. A Phœnician expedition was directed to sail down the Red Sea and along the coast to the Land of Punt and the unknown territory beyond. According to tradition, this expedition sailed round the whole continent of Africa and passed through the Straits of Gibraltar into the Mediterranean, reaching Egypt from that direction.

Egypt, in her several thousand years of history, had been many times conquered by foreign races or the leaders of foreign armies, and had sometimes endured the domination of strangers for five hundred years at a time, though Egyptian art, tradition, and religion either survived concurrently alongside the habits and customs of the less civilised rulers, or ended by Egyptianising the stranger. But there was

to come a time when the independence of Egypt was to disappear, when the Egyptian language was to cease to be dominant, when, in fact, the Egypt of the Pharaohs and the Pyramids, of the Hieroglyph and the Mummy, of Ra and Aphis, Osiris, Isis, and Horus was to disappear — perhaps for ever; for the potent race that had so long held aloft a brightly-lighted lamp of civilisation has been so changed and degraded by the infusion of Persian, Arab, Greek, Italian, Negro, Circassian, Turkish, French, and Maltese blood, so often decimated by wars, famines, and diseases, and renewed with the tainted blood of mercenary armies, that, though the residuum of the population may still offer great facial resemblances to the vanished Egyptian type, the majesty of demeanour, the brilliant mental endowments of the old race have gone, and the rulers of Egypt to-day under the indifferent English are the descendants of Slavs and Turks, Arabs, Armenians, and Circassians.

A ruler of Egypt, a usurper named Aahmes, had been raised to the kingship over Egypt by a soldier's mutiny. He had legitimised his position by marrying a granddaughter of Psametik I. Carrying out a series of successful expeditions, he once more opened a way to the commerce of Nubia and the Upper Nile. He intervened in the affairs of Asia Minor to support a small state there against encroachments by the Persian conqueror Cyrus. The son of Cyrus the Great, whom we know as Cambyses, but whose real name was probably in Persian Kambujiya, resolved

to punish Egypt for this interference. Aahmes, whom the Greeks called Amasis, died before he could resist the invasion, and his son, Psametik III., lost his throne and the independence of Egypt in the battle of Pelusium. Cambyses became the conqueror, and was crowned the legitimate King of Egypt. He seems to have been an erratic and cruel conqueror, but, like Nero, somewhat fantastically interested in science and exploration. He sent one great expedition into the Libyan Desert which was never heard of again, and is supposed to have perished in the sand; and he led a great army himself up the Nile with some vague intention of conquering the Ethiopians. His soldiers, however, had marched only a small distance into the desert when their commissariat failed, and many perished, while others became cannibals in their mad hunger. This disaster put a stop to any further efforts on the part of the Persian Overlords of Egypt. For nearly two hundred years Persia maintained her hold over Egypt, though for brief intervals native dynasties arose in this part and that part and flickered for a time in a state of semi-independence. Then happened one of the great events in the history of Egypt and of the development of Africa, — an event which may be paralleled by the descent on Egypt of Napoleon Bonaparte two thousand one hundred and thirty-one years later: Alexander the Great, continuing his war against the Persian Empire, attacked that power in Egypt and won the day. Alexander left in charge in Egypt one of his

generals (who was perhaps also his illegitimate half-brother), Ptolemy. After his death Ptolemy refused to acknowledge the claims of Alexander's posthumous son, and made himself King of Egypt. He thus founded a Greek dynasty in that country which lasted till the advent of the Cæsars and expired in the person of the world-famed Cleopatra.

CHAPTER II

THE GREEKS INTEREST EUROPE IN THE NILE QUESTION

THE second division of the Caucasian species of man (the Iberian being the first) was the Aryan, — a race of golden-haired, pink and white complexioned people, with eyes that are blue, gray, or violet.[1] The Aryans first came into Greece as barbarians and destroyers, but were soon conquered by the preceding Iberian Mykenæan civilisation, on which they built up that Hellenic art and knowledge which are the foundations of European civilisation at the present day. This Hellenic spirit first made itself felt in Africa through the Greek colonies of the Cyrenaica. Greece, when it became conscious of a world beyond its peninsulas and islands, was strongly drawn towards Africa. The power of Egypt long withstood attempts at Greek colonisation, though in quite early days Hellenic or Hellenised Europeans were employed by the rulers of Egypt as mercenary soldiers. Therefore, following the line of least resistance, Greece planted her first African colonies between Egypt on the east and the settlements of the

[1] Needless to say, in all cases the iris of these eyes is actually gray; but the gray almost verges on blue in some instances, while the absence or presence of a dark rim round the eyes gives or withholds the violet tinge to the gray.

Phœnicians (Carthage), on the west. Due west of the narrow coast belt of Egypt is a remarkable projection of North Africa into the Mediterranean,—the modern Barka, the ancient Cyrenaica. This projection has been, several times in geological history, a series of islands in a larger Mediterranean, or it has grown into a bridge connecting Greece with Africa. The land now rises to heights of three thousand feet, and there is a sufficiency of rainfall in ordinary seasons to nourish a vegetation not much less rich than that of southern Italy. South of the Cyrenaica lies the Sahara Desert in its most aggravated form of well-nigh impassable sand dunes. No Greek expedition that we know of ever succeeded in crossing the Sahara from Cyrenaica and reaching the Sudan; but Greek influence and inquiries were dimly felt in Phazania (Fezzan) to the southwest, and the existence and prosperity of these Greek colonies in North Africa aroused the interest of the Greeks in matters of African exploration. In about 457 B.C. Herodotus (a native of Halicarnassus, a Hellenised state in Asia Minor under Persian rule) visited Egypt, which from 650 B.C. onwards had been more or less thrown open to Greek enterprise by Psametik I. Herodotus himself travelled up the Nile as far as the First Cataract, and collected with some industry information from Egyptians and travelled Greeks as to the regions which lay beyond. From these he learned that the origin of the Nile was unknown, but that the river might come from the far west, from the region where we now know Lake Chad

to be; that there was a civilised city of Ethiopians in the great bend of the Nile at Meroe (Merāwi of to-day), and that beyond this nothing certain was known of the Nile course. Aristotle — the great Greek philosopher, who was born in northern Greece in 384 B. C. — wrote on African discovery and recorded the news that to the southwest of the Nile were Pygmy races who frequently warred with the "cranes" (? ostriches).

In B.C. 276 was born at Cyrene, in North Africa, Eratosthenes, a Greek geographer, who was made Librarian at Alexandria. From the information he collected and collated (supplied, no doubt, by Greek traders) he, first of all known geographers, sketched out with fair accuracy the course of the Nile and its two great Abyssinian affluents as far south as the modern Khartum. He hinted at the lake sources and first mentioned the Nubians.

It was the conquest of Egypt from Persian domination by Alexander the Great which really did more to extend Greek commerce and civilisation and the use of the Greek language over eastern Africa and western Asia than has even been done at a far later date in other parts of the world for German commerce, knowledge, and the German language by the unification of Germany under Bismarck, William I., and William II. Greek explorers visited the Nile as far south as the junction of the Astapus (Blue Nile), and Greek settlements were made on the island of Sokotra, and possibly at other points near the mouth of the

Red Sea. Greek traders even visited the East African coast as far as Pangani, opposite Zanzibar. The Greeks revealed India to Europe, and the commerce which sprung up there through Greek agencies on the Persian Gulf and the Red Sea gave unwilling navigators, in those days before steam force, some acquaintance with the eastern coast of Africa as far south as Zanzibar.

Yet the Greeks in all these regions were (as subsequently happened with the Portuguese) but the followers of the Arabs and Phœnicians. Some impulse, kindred in origin, no doubt, to the evolution of the Phœnicians, had created an ancient civilisation in southern and western Arabia which perhaps reached its climax in the lofty, well-watered, and fertile country of Yaman. Much of southern Arabia, however, several thousand years ago, was less arid than at the present day. The rainfall was greater, and the already civilised inhabitants industriously preserved the precious water by dams for purposes of irrigation. This civilisation may be briefly styled Himyaritic or Sabæan, — perhaps the last name is the more comprehensive. These Sabæan Arabs of south and south-west Arabia, separately or in conjunction with their Phœnician cousins, pursued their search for metals down the east coast of Africa, along which they made settlements which are probably the sites of most of the modern emporiums of commerce on the same coast. They had reached the mouth of the Zambezi and ascended that river, and had penetrated as far south as,

let us say, Delagoa Bay. It was perhaps their exploration of the Zambezi which led them to discover alluvial gold in the vicinity of that river, though they afterwards found a shorter route to the gold fields by way of Sofala. In this way they forestalled by some twenty-five hundred years modern Rhodesian enterprise, and gold was worked in the regions to the south of the Lower Zambezi and a little to the north of that river by Arabs or people of allied language and race almost continuously from an approximate period of three thousand years ago down to the arrival of the Portuguese at the beginning of the sixteenth century of this era. In the days before the appalling religious disunion brought about by the conflicts between Christianity and Islam there was no bitter feeling against the European on the part of the Arab, and Greek adventurers and traders appear to have penetrated freely up the Nile, and to have worked cordially with the Sabæan Arabs whom they found established at various points between India on the one hand and Zanzibar and the Red Sea on the other. The Greek colony on the island of Sokotra no doubt traded industriously with the opposite coast of Somaliland.

Rome displaced Greece in Egypt in the same way that Greece had displaced Persia, and that Persia had closed the five thousand years of fighting between Libyan, Gala, Arab, and Nubian. In 168 B. C. Rome extended her protection over Egypt. In 30 B. C. Egypt became a Roman province. When the Romans really

took over the administration of the land, they too, like the Galas, Persians, and Greeks before them, and the French, Turks, and English after them, began to be interested in the quest for the Nile sources. Each newly-arrived race of Caucasian conquerors in Egypt has felt the same interest. But much of the exploring and recording work under Roman rule was done by Greeks. Strabo, a native of Amasia in Pontus, on the southern shore of the Black Sea, who was born somewhere about 50 B. C., became, when quite a young man, a geographer of the Roman world. He accompanied in B. C. 24 Ælius Gallus, the Roman Governor of Egypt, on a journey up the Nile as far as Philæ (beyond Assuan and the First Cataract). Pliny the Elder, writing some fifty years after the birth of Christ, shows us that just before and just after that event Greek explorers (mainly from Asia Minor) had been busy on the Nile above the First Cataract and perhaps south of Khartum. These were Bion, Dalion, and Simonides. Aristocreon and Basilis are also mentioned as authorities on Nile exploration, but not necessarily explorers themselves. Simonides, above mentioned, lived for five years in Meroe. Dalion is thought to have penetrated up the river some distance beyond Khartum. The "Meroe" which is so constantly mentioned by Greek and Roman writers from Herodotus to Ptolemy, was a name given originally to an important and flourishing city on the south or left bank of the Nile in Dongola, — the modern Merāwi. This place was also known

as Napata (Egyptian, Nepet), and was the residence of Ethiopian (Abyssinian, Gala, Nubian) kings. Later the name Meroe was also applied to a place on the right bank of the Nile about one hundred miles south of that river's confluence with the Atbara. This is probably where the Greek Simonides stayed and beyond which Dalion travelled. Finally, the term Meroe was applied to the "Island" (peninsula) formed by the Atbara, the Blue Nile, and the White Nile, a region formerly of great fertility.

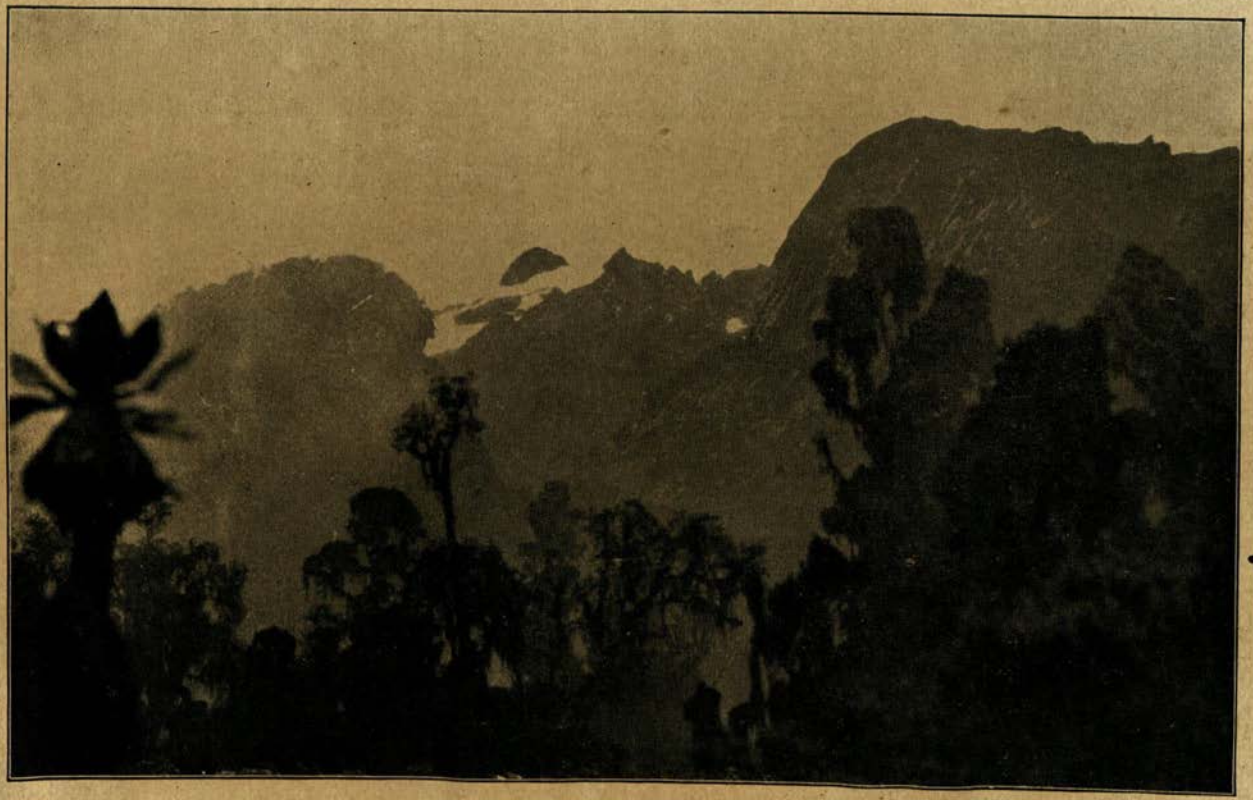
The Emperor Nero, though the Beast of the Apocalypse, had a certain genial interest in geography. He despatched — or caused to be despatched — an expedition under two centurions in about the year 66 A.D., to discover, if possible, the source or sources of the White Nile. Before dealing with Egypt the Romans had taken over control of the old Greek colonies of the Cyrenaica and on the coast of Tripoli. This had led (A.D. 19) to their having extensive relations with the Berber kingdom of Fezzan, with whom and with the Tawareq people of Garama to the south they maintained friendly relations. Through this friendly cooperation a Roman expedition under Septimus Flaccus had in the year 50 A.D. (perhaps) reached to some trans-Saharan place like Bilma. Much later, about 150 A.D., another expedition under Julius Maternus joined forces with the friendly Berber King of Garama, and actually travelled to the vicinity of Lake Chad, or, as some think, to the oasis of Air or Asben farther to the west. It was a country which they called Agi-

symba, and abounded in rhinoceroses. From this expedition the Romans derived some inkling of the possibilities, beyond the sandy wastes and sun-smitten rocks of the Sahara Desert, of a fertile Sudan, populated with an excellent material for slaves. But a hundred years earlier they had realised the enormous difficulties which attended any enterprise (in the days before camels were used in Africa) across the Sahara Desert, and this gave them an added desire to follow up the Nile and ascertain its practicability as a waterway into Negro Africa.

Nero's two centurions were passed on by Roman prefects to friendly Nubian chiefs, one of whom ruled the principality of Meroe along the main Nile between Atbara and the Blue Nile confluence. Furnished with boats which they later exchanged for dug-out canoes, they appear to have ascended the Nile above Fashoda, and possibly above the confluence between the Bahr-al-Ghazal and the Kir or White Nile. At any rate they got far enough south to come in contact with the Great Marsh which extends from the vicinity of Fashoda to the frontiers of the Uganda Protectorate. Their passage was stopped by the accumulation of water vegetation which we now know as the "sudd." Some writers on ancient geography believe that the two centurions penetrated as far south as the sixth degree of north latitude, or the verge of the Bari country. At any rate they got well into the land of the naked Nile Negroes. Their discouraging reports seem to have put an end to any further Roman enterprise in the matter.

Greek traders in Egypt prospered greatly under the peace imposed by the Roman Empire. Their commerce with Arabia, East Africa, and India grew to a wonderful development in the first century after Christ. About 77 A.D. was published by a Greek of Alexandria the celebrated "Periplus of the Red Sea," a pilot's manual not unlike the modern Admiralty "sailing directions." This "Periplus" shows us that the Greeks by the middle of the first century knew the Zanzibar coast very well under the name of Azan or Azania.

Among these Greek merchants trading with India was one Diogenes, who, on returning from a voyage to India in about 50 A. D., landed on the East African coast at Rhaptum (Pangani or the mouth of the river Rufu?). Thence, he said, he "travelled inland for a twenty-five days' journey, and arrived in the vicinity of the two great lakes and the snowy range of mountains whence the Nile draws its twin sources." As nothing is recorded about his return journey, it is more probable that he merely conversed on the coast with Arab settlers and traders who told him that at a distance of twenty-five days' march in the interior began a series of great lakes from two of which were derived the twin sources of the White Nile; that farther to the south of the most western of these two lakes was a range of mountains of great altitude covered with snow and ice, and named for their brilliant appearance of white the Mountains of the Moon. The Nile, he was told, united its twin head-streams at a point to



[*Face page 23.*

THE MOUNTAINS OF THE MOON: A GLIMPSE OF ONE OF RUWENZORI'S HIGHEST PEAKS.

the north of these two great lakes, and then flowed through marshes until it joined the River of Abyssinia (the Blue Nile), and so reached the regions of the known.

This story was told by Diogenes to a Syrian geographer called Marinus of Tyre, who published it in his geographical works in the first century of the Christian era. The writings of Marinus of Tyre disappeared, probably with the dispersal of the Alexandrian Library, but fortunately for us at the present day all that portion of them dealing with the sources of the Nile was quoted almost *in extenso* by another geographer, Claudius Ptolemæus, a Greek-Egyptian, born at Ptolemais in the Delta of the Nile, and resident at Alexandria (perhaps in connection with the celebrated Library). Ptolemy (as he is currently and incorrectly called) wrote in about the year 150 A. D., and therefore to Ptolemy is commonly attributed the first clearly expressed theory as to the main origin of the White Nile, the twin lakes (Victoria and Albert), and the great snowy range called the Mountains of the Moon (Ruwenzori).[1] Neither Marinus of Tyre nor Claudius Ptolemæus was the first person to hint at this origin of the Nile. Besides Eratosthenes and Pliny there are indications in various records of the two centuries before Christ that the idea of the White

[1] Ptolemy's original maps have disappeared, and we only know them through the well-nigh innumerable copies that were made by Greek monks between 600 and 900 A. D., by Arabs in the Islamic Renaissance, by Latin monks and pilgrims, by Venetian and Catalan sailors, and Flemish or German geographers. Latterly many of these copyists imported into Ptolemy's maps of the Nile much recent and modern information.

Nile issuing from two great lakes and passing through a vast marshy region before it reached Ethiopia was vaguely known. The idea had perhaps even reached the ears of Cambyses and of such of the earlier Ptolemies as may have cared for geographical speculations. The bearers of the news would undoubtedly have been men of the Gala (Abyssinian, Somali, Cushite) race, who at that distant period of time seem to have freely penetrated through the lands of the brutish and unarmed Negroes. No doubt many a Greek adventurer in passing along the east coast of Africa brought back tidings similar to those of Diogenes, but his grain fell among the rocks, and the only definite record of the existence of this theory as to the Nile's origin is the story of Diogenes preserved through the industry of Marinus of Tyre and Claudius Ptolemæus of Alexandria.

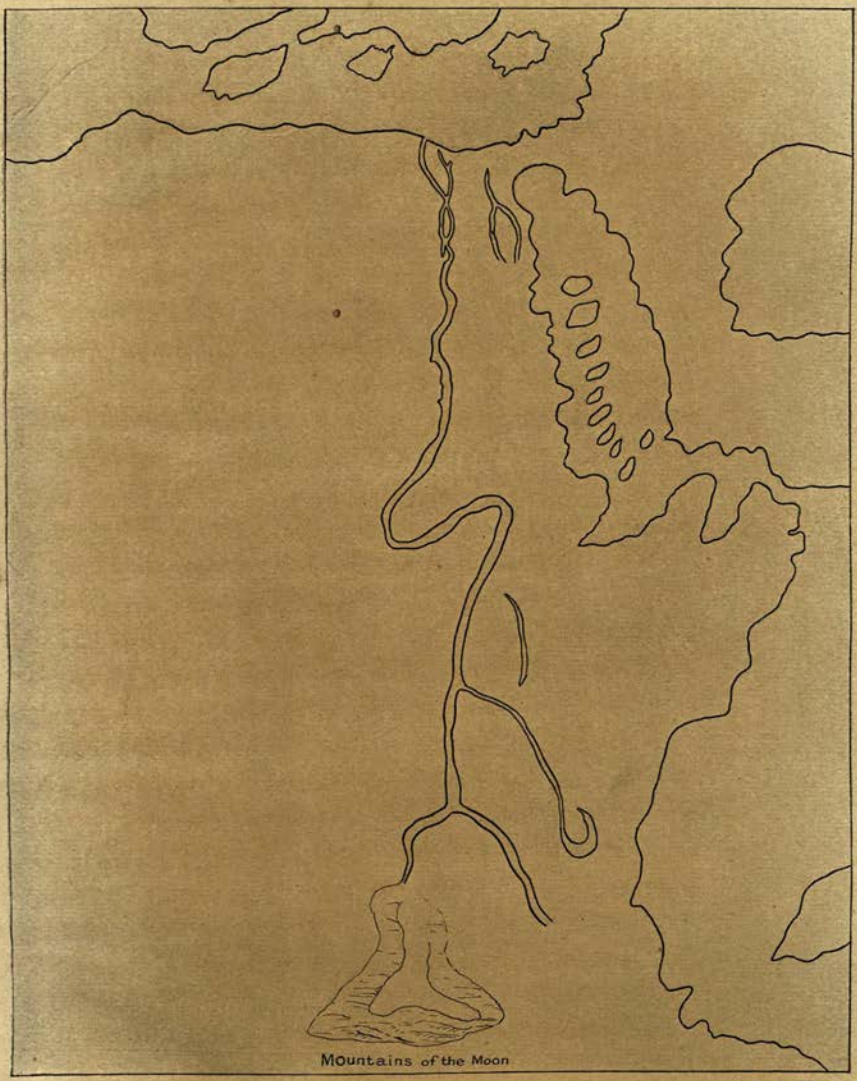
The recording of travellers' tales as to the twin lake sources of the main Nile stream and the existence of a great snowy range called the Mountains of the Moon was not the only contribution made by Claudius Ptolemæus to Nile geography. The Egyptian Greek indeed was a geographical giant compared with any of his predecessors, nor was the height of his knowledge concerning the geography of Europe, Asia, and Africa reached and passed until the fifteenth century of the present era, some twelve hundred years after his death. The results of the later Crusades, intercourse with the Arabs, and the journeys of Marco Polo and other enterprising Venetians had brought

in some cases confirmation of Ptolemy's theories, had corrected some of his errors, and had filled up gaps in his information. But as regards the geography of Africa more especially, Ptolemy remained ostensibly the great authority until the end of the fifteenth century, although, as already mentioned in a footnote, the latest editions of Ptolemy's maps (the latest ascribed to Ptolemy was published about 1485) show that the geographers at the closing part of the fifteenth century, consciously or unconsciously, touched up Ptolemy's work by later information received from Arabs, Italians, and Turks. Ptolemy discussed with much detail the whole course of the Nile so far as it lay to any extent within the regions of the known. He described the approximate outline of its course about as far as the present site of Berber, which district he describes as the Greater Primis, a name which Sir E. H. Bunbury takes to be identical with the locality of *Primnis* [1] rumoured by Strabo. Above this point Ptolemy applies the name of Meroe (so often attributed to settlements or districts in Dongola) to that great peninsula which is so nearly enclosed between the Atbara, the main and the Blue Niles. Ptolemy indeed, and most writers of earlier and later days, believed this district to be an actual island.[2] The junction of the Blue and the White

[1] Even to-day the local (unofficial) name of Berber or any of the districts round Berber is Ibrim.

[2] This mistake is hardly surprising, seeing that at Matama, in the country of Galabat, the most southern affluent of the Atbara approaches to within five miles of the most eastern affluent of the Blue Nile. See Chapter XXVI.

Niles is wrongly placed by Ptolemy in latitude 12° north, instead of 15° 40′, and from this point southwards Ptolemy's proposed latitudes of places on the White Nile became increasingly incorrect, so that by him the Nile system was carried a little too far to the south of the equator. South of the site of modern Khartum Ptolemy had but little information to go upon, other than the account of the Centurions' voyage; but from such suggestions as he could obtain, together with the story of Diogenes, he guessed that the twin sources of the White Nile joined their streams into one river at 2° north latitude. This junction described with the knowledge of later days would be equivalent to the exit of the Nile from Lake Albert, the real latitude of this point being 2° 25′ — an uncommonly good guess on Ptolemy's part. Ptolemy, however, imagined nothing quite like Lake Albert, but thought that the waters coming respectively from the two great equatorial lakes effected their junction at a point some two hundred and fifty miles north of the western lake source (Lake Albert); for he surmises that this lake lies approximately under the sixth degree of south latitude (its southernmost extremity is in 1° 10′ north of the equator). His hypothetical Lake Victoria lies under or extends to the seventh degree of south latitude, instead of no farther than about 3° 30′ south. Ptolemy, however, was careful to discriminate between the lake sources of the White Nile and the lake (Tsana) from which the Blue Nile issues in the highlands of Abyssinia. This



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THE COURSE OF THE NILE, ACCORDING TO PTOLEMY.

From the oldest version of Ptolemy's Map in existence, about 930 A.D., preserved in Mount Athos Monastery.

sheet of water he calls definitely Coloe, and states that it is the source of the river Astapus (or Blue Nile). It is thought that Strabo also made allusion to Lake Tsana under the name of Psebo. It is probable that both Strabo and Ptolemy heard of this lake source of the Astapus or Blue Nile from Greek traders who had penetrated Abyssinia; for, during the first centuries after Christ, Axum (then called Auxuma) had become an important trading-centre which was reached from Adulis (Adulis being a port on the Red Sea not far from the modern Masawa). Ptolemy's location of Lake Tsana, however, like the equatorial lakes, is too far to the south. His sketch of the main course of the Atbara (Astaboras) on the one hand, and of the Blue Nile (Astapus) on the other, would not be very incorrect, but for the fact that he makes these streams unite somewhere in the latitude of Khartum and then separate again, their northern separation enclosing the island of Meroe. The Græcicised names of Astapos (Blue Nile) and Astaboras (Atbara) were recorded before the days of Ptolemy by Eratosthenes, but were not applied in the same definite way to the Blue Nile and the Atbara. Eratosthenes sometimes applies the name of Astapos to the main stream of the Nile and not specially to the Blue Nile. He also mentions that the main stream of the Nile is called Astasobas. It is evident that in these words we have corruptions of local names, possibly derived from Nubian, or it may be from Hamitic languages. Astaboras needs but little identification

with the Atbara. Astapus (Greek = Astapos) is not clearly recognizable under the modern Abyssinian name of the Blue Nile, — Abai. The second part of Astasobas certainly recalls the name Sobat, which besides being applied by the Sudanese Arabs to the Baro or Sobat is also sometimes given by them or by the Nile Negroes to the main course of the White Nile south of Khartum. Asta may have been some Ethiopian term meaning "river."

The present writer is unable to understand why that able geographer, Mr. E. G. Ravenstein, has doubted the identification of Ruwenzori with Ptolemy's Mountains of the Moon. It must be obvious, when all facts are considered, that Ruwenzori was the principal germ of this idea. The Greek traders at Rhapta (Pangani) no doubt had some idea of the existence of Kilimanjaro, but it is doubtful whether either the single dome of Kilimanjaro or the gleaming pinnacle of Kenia would impress the imagination so strongly as the whole brilliant range of Ruwenzori's four or five snow-peaks and thirty miles of glaciation. On such occasions, as when this range is visible from a distance, and broadside on, the dark blue forested slopes merge into the morning mists of the lowlands, leaving the splendid phantasmagoria of cream-coloured snow and gray rock floating in the sky like an exaggerated lunar landscape. Ptolemy places this range, as he does his lakes, too far to the south, and associates it more with the modern country of Unyamwezi than with the region between the two lakes Albert and Victoria. But

no doubt then, as in Speke's day, Ruwenzori and Lake Albert were reached by Greek adventurers, by Sabæan Arabs, or by natives who served as intermediaries, by way of the established trade route through Unyamwezi. This word, which means "the Land of the Moon," appears to be rather old for a Bantu place name: Unyamwezi indeed seems in the history of Bantu migrations to have played an important part, and to have been one of those many sub-centres from which great dispersals of the Bantu races took place. Indeed the Zulus (who were probably the dreaded Mazimba or Bazimba spoken of by the Portuguese) seem to have halted in their cannibal days in Unyamwezi before they descended on South Africa in the sixteenth century. Ruwenzori is not, after all, such a very long journey to the northwest of Unyamwezi, and it is very possible that the returning travellers, having stated that they reached the Nile sources and these wonderful snow-mountains through the Land of the Moon thus caused this lunar name to be applied by Ptolemy to the Ruwenzori range.

Though not an explorer, Ptolemy stands (for his age) in the highest rank of Nile geographers; but he had to wait something like seventeen hundred and forty years before Sir Henry Stanley, by his discovery of the Semliki, the Ruwenzori snow-range, and the last problems of the Nile sources, did justice to that remarkable foreshadowing of the main features of the Nile system due to the genius of the Alexandrian geographer.

CHAPTER II

ABYSSINIANS AND JEWS

THE race of the Greek kings who ruled over Egypt after the death of Alexander the Great and until 30 B.C., and later, again, the Byzantine Emperors of Eastern Rome did much to implant Hellenic civilisation and the use of the Greek language in Egypt, and their influence extended over Abyssinia, where the kings of Ethiopian race (Gala dashed with Arab and Jew) admired and imitated them in much the same manner as the second Emperor of the French was admired and imitated by the lesser potentates of Germany. The history of Abyssinia — if it is to be written with regard to truth — is still obscure. This country of lofty mountains and temperate climate is bordered on the east by the land of Afar, an inhospitable desert inhabited by fierce Hamites (Danākil). On the south its mountains are connected by plateaux and ridges with the highlands of East Africa, but are separated by much arid and parched country from the regions of the modern Uganda protectorate. On the west the mountains of Abyssinia descend in terraces to the plains of the central Nile. Here the torrid climate is that of the Sudan, but the country is better watered by the rivers which rise in Abyssinia, and by a fairly

regular rainfall. On the extreme north the Abyssinian mountains almost overhang the coast of the Red Sea, and are no doubt visible in clear weather from the opposite Arabian shore. The mountains of Yaman are remarkably similar in many points to those of Abyssinia, and the people of Yaman when they were seized with a desire to emigrate in search of fresh homes were no doubt drawn to this distant land of mountains just visible in the west. Originally no doubt Abyssinia was peopled by the same dwarf Bushman race as that which formed the lowest stratum of all the African populations. Then a portion of the country came into the possession of the big black Negroes who still inhabit its western flanks. These again are superseded and partially absorbed by the superior race of the Hamites, the ancestors of the Gala, Somali, and Ancient Egyptian. This Hamite race of Caucasian stock with some Negroid intermixture forms the basis of the Abyssinian population at the present day. But in the early days of Sabæan enterprise — say four thousand to three thousand years ago — Abyssinia was conquered by Sabæan Arabs from Yaman. At many subsequent periods Abyssinia and Yaman (the Red Sea acting as no barrier) were governed by the same dynasty, and when Yaman came under Persian influence that influence also penetrated Abyssinia. In this manner Abyssinia early developed a trade with India, and even served as an emporium for the introduction of Indian wares into Egypt on the one hand and the remote parts of eastern equatorial Africa on

the other. The Queen of Saba (Sheba) is no doubt in many respects a legendary personage, but if she had any real historical existence she is another instance of an Arab ruler who governed both Abyssinia and Yaman. She may or may not have visited Solomon, but there is no doubt that in the time of that Jewish king some intercourse was kept up between the kingdom of Israel in its brief flicker of power and prosperity, and the coasts of the Red Sea and southern Arabia. After the smashing up of the Hebrew state by the Assyrians there are good reasons for assuming that a number of the dispersed Israelites migrated to Abyssinia, as no doubt they did to other parts of the Sabæan Empire. Jewish monotheism always had a certain fascination (in the days before Christianity and Islam) for the peoples of Arabia and of Mauritania. This influence was most felt after the final destruction of Jerusalem by the Romans and the subsequent dispersal of the Jews in all directions. Several princes in southwestern Arabia adopted the Jewish faith, more or less, and the Jewish settlers in Abyssinia also appear to have acted as missionaries in converting the savage, nominally Semitic, partly Gala rulers of Abyssinia to the principles of the Jewish faith, into which they wove Jewish legends, such as the glory and power of Solomon. A similar influence impressed on the Arab mind the Solomon of the legends. The real son of David was no doubt an unimportant Semitic prince who borrowed a little civilisation from his Phœnician, Egyptian, and Sabæan

neighbours. But the Greek influence emanating from Egypt displaced for a time the Persian and Jewish culture in Abyssinia. In the northern parts of that (then) collection of Arab and Gala kingdoms, Greek began to be used as a second language, the speech of the Court itself being a foreign tongue (Ge'ez), derived from the Himyaritic or some early south Semitic language.

Auxuma — the modern Auxum — in the kingdom or province of Tigre (northeastern Abyssinia) and near the more modern town of Adua, became an important trade centre, frequented by many Greek merchants, some of whom seem to have occasionally returned to their homes in Egypt by way of the Atbara and the Nile. Others forestalled the Portuguese by entering into trade relations or actually undertaking journeys which revealed to them the existence of Lake Tsana and the upper waters of the Blue Nile.

Cosmas Indicopleustes, a Byzantine Greek, who traded with India in the early part of the sixth century of our era, called at the port of Adulis (near Masawa) in 520 A.D. He discovered at this place a monument which contained two separate inscriptions. The monument was apparently one erected at the orders of Ptolemy III. (Philadelphus), who reigned in Egypt from 285 to 247 B.C. This Ptolemy led and sent expeditions which made a partial conquest of the coast regions of northern Abyssinia, and added to the Egyptian Empire of that day a good deal of

what now constitutes the modern Italian colony of Eritrea.[1]

On the same monument some four hundred and seventy years later, in about 127 A.D., a Semitic Abyssinian king (possibly Ela-Auda) recorded in turn his own victories and extensions of rule. These conquests seem to have done much to carry the Abyssinian (Semitic as distinct from Hamitic) arms as far south as the ninth degree of north latitude. Other indications would show that from this time onwards to about the tenth century A.D. Abyssinian influence and conquests extended southward intermittently to the vicinity of Lake Rudolf (the northern end of that lake). Owing to these conquests, Christianity was carried as far south as the modern province of Kaffa, and northwestwards along the course of the Blue Nile to the site of the modern Khartum; for at one time Abyssinian suzerainty or rule extended almost to the verge of Kordofan on the west.[2]

The introduction of Islam among the Somalis, among some of the Gala tribes, and all round the north and west of Abyssinia in the centuries that followed the eleventh, checked any further spread of Christianity, and limited — even curtailed — the political aspirations of Abyssinia. In the sixteenth century a Muhammadan

[1] Ptolemy Philadelphus' chief inducement to establish stations in Abyssinia was to procure war elephants. Thus to these Egyptian Greeks and Ethiopians the African elephant did not appear too intractable.

[2] Dongola, the accepted name for the Nubian country north of Kordofan, appears at one time to have been inhabited by a race speaking a Hamitic rather than a Nubian language. Dongola (originally Dankala), or its plural, Danagla, may be etymologically connected with Danākil of the north Somali coast.

ruler — Muhammad Granye — arose in the Danakil country (Tajurra Bay), and practically smashed the Ethiopian Christian power in Abyssinia, which did not recover from the ravages of these Muhammadan (Arab and Somali) armies for a century or more. Soon after the wars of Muhammad Granye the heathen Galas[1] from the south and southwest entered Abyssinia in force, and it was a long time before the Semitic rulers of that country could bring them under control. The arrival of the Portuguese (to be described in the next chapter) gave a fillip to the power of the Christian Semites of Abyssinia, mainly through the introduction of guns and gunpowder. It is possible, indeed, that at different times after the commencement of the Christian era Abyssinian raiders may have ridden south on their slave, ivory, and cattle-hunting expeditions as far as the vicinity of Mount Elgon. At the present day their raiders come almost to the frontiers of Busoga, for there is no tsetse fly in all the district between Abyssinia and the Victoria Nyanza; therefore, as the Abyssinians have possessed horses for several thousand years, there has been little to stop their making rapid expeditions into the Land of the Blacks. In this way they may have raided and traded as far south as the Victoria Nyanza and as far west as the White Nile, bringing back with them for the edification of the Greeks stories of the Great

[1] Gala and Somali are almost convertible terms. But in this book Somali is used to indicate that section of the Gala peoples who have become Muhammadans, and Gala is reserved as a general term for the whole race or for its non-Islamite tribes.

Lakes and Snow-mountains, and assisting, perhaps, to distribute over the lands now comprised within the Uganda Protectorate those remarkable blue Egyptian beads of unknown antiquity which have been referred to by the present writer in his book, "The Uganda Protectorate," as being some slight indication of ancient trading relations between the countries of the Great Lakes and those under the dominion of Egypt.

CHAPTER IV

ISLAMITES AND ITALIANS

WHEN Egypt had become part of the Byzantine dominions, all interest in the Nile sources had died away, and men's minds were mainly centred on religious controversies of greater or less violence. Greek Christianity penetrated to Abyssinia and south of Abyssinia to countries not far from the north end of Lake Rudolf. Most of the Nubian kingdoms became nominally Christian, and Christianity was the religion of the people on the Nile banks as far south as the confluence of the Blue and White Niles. It is thought by the missionaries of the White Fathers' Mission to Uganda that the sign of the cross and the idea of baptism, with one or two other practices found in the old heathen religions of Unyoro and Uganda, may have reached those countries from Abyssinia. Greek and Arab Christians in the first six centuries of the Christian era certainly penetrated to the East African coast, but after the official adoption of Christianity by the Roman Empire all mundane knowledge began to decay. Christianity inspired a contempt for science, and the only ideas of geography which floated about the world were connected with the wanderings of propagandists or

pilgrimages to the shrines of saints. Arab enterprise, moreover, in these sad centuries suffered a curious eclipse. Far to the south, in Zambezia, no doubt the invasion of the country by the earlier and later sections of the Bantu Negroes brought about the destruction of Sabæan power; and the somewhat degenerate successors of the Sabæans from the south coast of Arabia only occupied the coast emporiums dotted along the littoral from Somaliland to Sofala.

Then came one of the great landmarks of the world's history, a movement productive of a little good and some harm to civilisation. Christianity had first been organised as a socialistic religion, grafting on to the beautiful and indisputable precepts of its Founder the reaction of poor, ignorant, starved, and enslaved people against the unmoral philosophy, unequal wealth, and excessive materialism of the time. It then grew to be a somewhat dismal faith, taking no heed of the beauty of this world and of mundane opportunities for happiness; and above all it waged an active warfare with sexuality, not merely curbing immorality, but (wisely or unwisely) opposing polygamy and advocating celibacy. The Arab and the North African were not ripe for such a faith, and Judaism had already biassed them against the polytheistic tendencies of Greek Christianity. Muhammad, the prophet of western Arabia, founded on a basis of phallic worship and animistic belief the third great Semitic religion — Islam. His teaching was a direct challenge to Christianity, and soon became

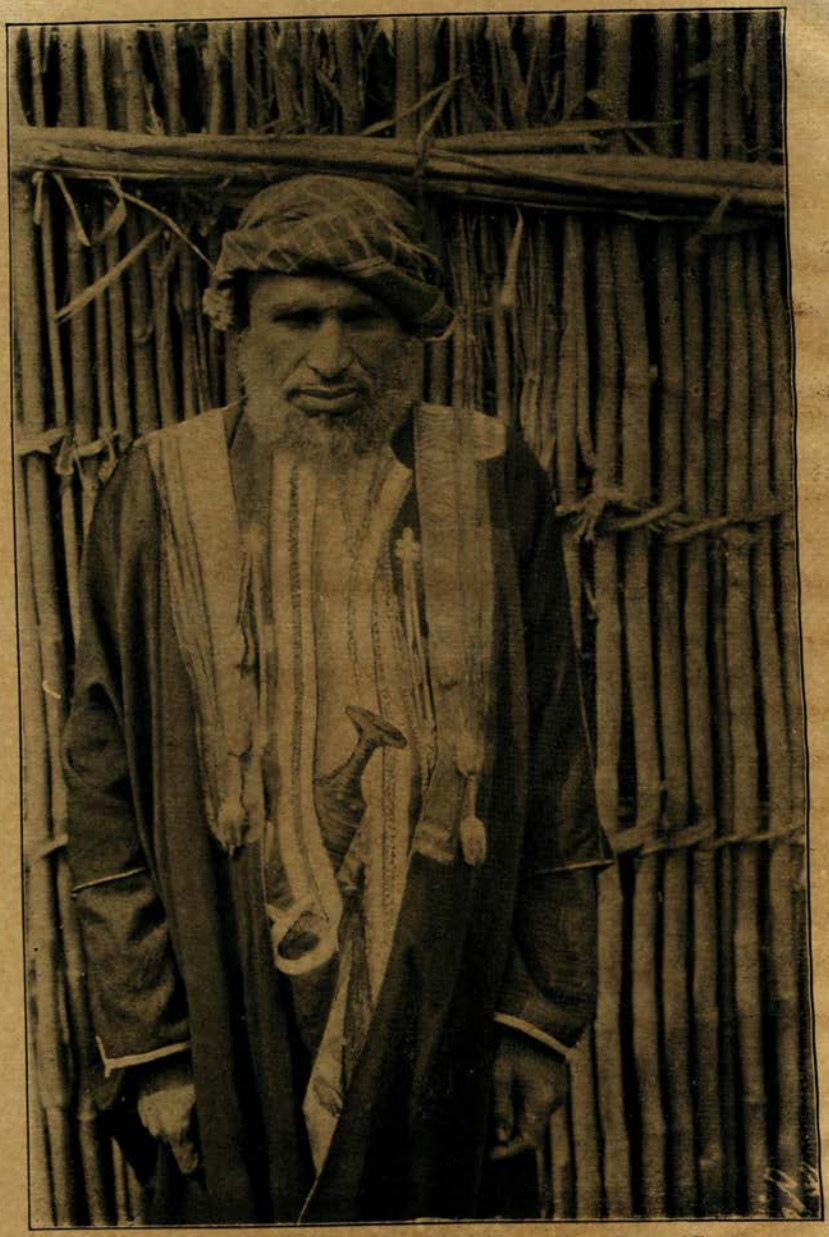
...noclastic in every sense of the word. Though the ...ersian, Syrian, and Iberian elements of the Arab ...mpire for a time revived and perpetuated in some...hat grotesque aspect the science of Greece, the art ...f Persia, and the lore of India, the Muhammadan religion sealed most parts of Africa to European and Christian research. It is true, however, that the conquests of Islam enabled Arabs to penetrate further into the interior of tropical Africa than before, though from the dawn of civilisation they had been the most constant explorers of the eastern part of that continent.

The Arabs began to mention names connected with the Niger and the western Sudan to the geographers of Italy and Sicily. Under the impulse of Islamic, Persian, and Arab colonies the east coast of Africa and the north coast of Madagascar came partially under Muhammadan rule in the tenth and eleventh centuries, the Arabs there carrying on almost continuously the commercial enterprise founded by their predecessors and brothers, the Phœnicians and Sabæans. Invasion after invasion crossed from Arabia, and passed over the lowlands surrounding Abyssinia to the central Sudan; or higher up, through Egypt, to Mauritania. But the Arabs who crossed the Nile in the latitudes of Khartum and Assuan made no attempts to follow the White Nile, the Blue Nile, or the Bahr-al-Ghazal to their sources,—left in fact all the Nile basin above the confluence of the Blue and White rivers absolutely untouched and unexplored. Egypt itself came under

Arab rule in 640 A.D., and subsequently formed a independent principality under the Fatimite Khalif

The Crusades brought French, Germans, and English, Aragonese and Flemings to the Delta of the Nile in more or less disastrous expeditions against the Saracen power, — a power which was fast becoming that of the Turk. A curious relic of these crusading days in the Nile Delta is or was (for the present writer is not aware if they still exist) several Spanish (originally Aragonese) monasteries, which were established with the consent of the Muhammadan rulers of Egypt in order to mitigate the woes of Christian captives and to arrange terms for their release.

Venice, however, — which had somewhat held aloof from the religious ardour of the Crusades in order to build up a great commerce with the Muhammadan East, — Venice became during the fourteenth and fifteenth centuries the great neutral go-between for the trade of India, Persia, Egypt, Arabia, and Syria with the Byzantine Empire and the rest of Europe. Venetians (in Arab dress, of course) ran less risk than other Europeans when travelling in Egypt in the days before the Portuguese discoveries. Through the Venetians Europe became acquainted with several strange African beasts which were brought from the Sudan for public exhibition in Muhammadan Egypt, and in this way European interest in the sources of the Nile was occasionally revived. It is remarkable to reflect that the name of Venice will



[*Face page* 41.

AN ARAB TRADER (MASKATI).

probably never die out (as far as etymology is concerned) in the very heart of Africa. In the fourteenth and fifteenth centuries, and perhaps later, Venice manufactured in her arsenals improved types of guns. She also acted as an intermediary in exchanging muskets (manufactured elsewhere in Europe) with the Arabs and Turks, who at that time could not construct these firearms for themselves. Thus the Turks and Arabs became accustomed to call any improved type of musket a "Venetian" (Bunduqi).[1] In this way the name of the most beautiful city in the world has penetrated beyond the explorations of any European into the very heart of Africa, as it has also circulated through all the Muhammadan East.

[1] The Arabic and Turkish name for Venice is, or was, Bunduq. This was a clumsy rendering of the German Venedig, which again was a corruption of the Latin Veneticum. Although the Arab *q* (a very strong *k*) is almost unpronounceable by most Europeans, it is nevertheless constantly used by Arabs for translating the *k*-sound in European words.

CHAPTER V

A SUMMARY OF THE ANCIENTS' KNOWLEDGE OF THE NILE

THE next page in the history of the Nile Quest is marked by the coming of the Portuguese; but before we proceed to consider what effect this movement had on the revelation of Africa to the knowledge of the Caucasian species, let us sum up briefly the purport of the foregoing chapters: —

1. The lands through which the Nile flows were inhabited some ten thousand years ago — let us say at a guess — by Pygmies in the north, east, and southwest, and elsewhere by big black Negroes, these types being offshoots from the original Negro Asiatic stem.

At some such period as ten thousand years ago northeast Africa was repeatedly invaded from Arabia by a branch of the Caucasian race — the Hamites — which in Arabia had absorbed a certain proportion of early Negro and Dravidian[1] blood. About the same time in Egypt itself there were invasions of other Caucasian immigrants; some perhaps of the

[1] By "Dravidian" I mean that very early and little differentiated, dark-coloured Caucasian of India who is only a few degrees, physically, above the Australian race.

Dravidian stock still met with in Baluchistan and India, and others of Libyan (Iberian, Algerian) race. There had also been early minglings between the big black Negroes on the Central Nile and Hamite invaders which had resulted in further hybrids such as the Nubians or "Ethiopians." These Ethiopians constantly invaded and raided Egypt, thus mingling with the Caucasian Egyptians, but also at other times acted as middlemen between civilised Egypt and the utterly barbarous countries of the Bahr-al-Ghazal and the Sudan; they brought to Egypt knowledge of the Pygmies and such of the bigger beasts of Africa as had become extinct in Egypt before the arrival of intelligent man. Through these Nubians the Egyptians occasionally had glimmering ideas as to the sources of the White Nile.

2. The Egyptians kept up a fairly constant communication with Abyssinia and Somaliland by sea and overland. They had a fair knowledge of the geographical features of Abyssinia and of the origin and source of the Blue Nile. Moreover, through the ancestors of the Galas and Somalis they came slightly into contact with the peoples of Lake Rudolf and the Victoria Nyanza.

3. The Greeks, who began to travel in Egypt five hundred years before Christ, expressed some curiosity about the origin of the Nile, and communicated this inquiring spirit to the Romans. This resulted for a time in the knowledge of the White Nile as far south as Fashoda.

4. The Arabs of western and southern Arabia very early in the history of civilisation developed a culture scarcely inferior to that of the Egyptians, and entered into trading and colonising relations with Abyssinia and Somaliland, and with the East African coastlands as far south as the modern Rhodesia. From their settlements on the Zanzibar coast (such as Mombasa) they probably journeyed inland on trading expeditions, or else the natives, who came to trade with them at the coast, gave them geographical information. In one or other way they learnt the existence of great lakes and snow-mountains. These stories the Arabs passed on to inquiring Greeks as far back as two thousand years ago; and an account which was an uncommonly near guess at the truth was given to the reading world during the first two centuries after the birth of Christ by writers on geography like Marinus of Tyre and Claudius Ptolemæus of Alexandria.

5. This was the high-water mark of knowledge concerning the sources of the White Nile for something like eighteen hundred years. Information on the subject in the interval began to grow less rather than more. The stories of the Nile lakes were, however, revived after the Arab invasions of north-east Africa in the twelfth and thirteenth centuries, and were communicated to the European world of the Renaissance through the intermediary of the Saracen writers of Sicily, the theologians of Rome, and the merchants of Venice.

CHAPTER VI

PORTUGAL AND ABYSSINIA

PORTUGAL was created by the crusading spirit. The King of Castile, who had become the leading prince in the northern half of Spain, despatched a young Burgundian adventurer, Count Henry, to advance on the Douro from Galicia (in the northwest corner of the Spanish peninsula) and to drive the Moors into the sea,— either the Atlantic Ocean or the Straits of Gibraltar. Count Henry drove them at any rate half-way down that western coastland of the Spanish peninsula which we now call Portugal.[1] Lisbon was only eventually conquered from the Moors by the help of a large party of English volunteers who stopped to aid in this struggle with the Moslem while on their way to a Crusade in the Holy Land. Steadily, bit by bit, Count Henry and his successors, the kings of Portugal, drove the Moors southward into and out of the little province of Algarve, and then, flushed with continuous success, crossed the Straits, attacked them in Morocco, and

[1] At the time of these exploits Oporto, now the second town of Portugal, was of little account; the great port at the mouth of the Douro was called in Latin Portus Calis, or, in the local dialect, Portucal. This place, being the most important port in the district recovered from the Moors by Count Henry, gave its name to the little principality which he founded

added a large part of the present Empire of Morocco to the possessions of the Portuguese Crown.[1] These brilliant successes awoke a great spirit of discovery in Portugal, — a spirit fomented and encouraged by that noble and far-sighted man, Prince Henry the Navigator, who had himself shared in the Morocco wars. Rapidly the limits of the Portuguese explorations extended. First they rounded Cape Bojador on the northwest coast of Africa. Then they reached Sierra Leone, the gold coast, Benin (where they powerfully affected native art and industry), the Niger Delta, the Cameroons, the Congo, Angola, and the Cape of Good Hope. Once having passed this promontory, whence they had once retired baffled, their great navigator, Vasco da Gama, carried on the exploration of the coasts of Africa eastward and northward to Mombasa and thence to India. Succeeding vessels explored the Red Sea, and the expeditions they conveyed attempted to get into touch with Abyssinia, where, according to the rumours brought home by crusaders

[1] Algarve is simply a Portuguese softening of the Arabic words Al Gharb, the Extreme West or place of sun-setting. At that time Morocco, across the Straits, was also called Al Gharb for the same reason. Therefore, after these conquests, the kings of Portugal styled themselves "Kings of the Algarves, on this side and on the other side of the sea." The after-triumphs of the Portuguese in the path of exploration, conquest, and colonisation were finally summed up in the grandiose titles of their monarchs, which endure to the present day, and which may well be allowed to endure with respect, seeing what the world's knowledge owes to the Portuguese navigators and conquistadores. The titles run, "Rey de Portugal e dos Algarves, alem e aquem do Mar na Africa; Senhor da Guiné e da conquista e da navegaçao d'Ethiopia, Arabia, Persia e India" (King of Portugal and of the Algarves, on this side and on the other side of the Sea in Africa; Lord of Guinea, and of the conquest and navigation of Ethiopia, Arabia, Persia, and India).

and Italian merchants from Egypt, there lay a Christian country ruled by a pious monarch, John the Priest.[1] But before ever Vasco da Gama had rounded the Cape of Good Hope, the Portuguese, by contact with the Moors, had heard of Arab settlements on the East Coast of Africa, and of the insular character of the great continent. Their government, therefore, in 1486 despatched on a journey to Egypt, India, and eastern Africa Pero de Covilhaõ to spy out the land.

This was a very risky journey in those days when the jealousy of Venice was added to the fanaticism of the Moslems. But Pero de Covilhaõ fulfilled his mission. He visited Egypt, the Red Sea, and India. He then, on his return journey, touched at many of the Arab ports on the East African coast. Finally he disembarked at Masawa, and travelled to Abyssinia, the first intelligent European to enter that country for a very long period of time, — the first, in fact, since the Greek merchants and missionaries who traded and travelled under the Byzantine Empire. The King of Abyssinia was so delighted with the advent of this white man, yet so suspicious of his country's motives, that he was detained as an unwilling guest in Abyssinia for several years, and died when on his way home. But the Portuguese fleet came to Masawa in 1520 with an embassy which remained in the country of Abyssinia for six years. In this embassy were the priests Bermudez and Francisco Alvarez. Alvarez

[1] Prester John.

afterwards (about 1550) wrote an interesting account of Abyssinia, describing more especially the province of Tigre, and alluding to the Atbara (there known as the Takaze) as the main Nile.

Bermudez became for a time the primate or patriarch of Abyssinia. The Jesuit missionaries, for the most part Portuguese, strove hard to replace the corrupt Greek Christianity of the country by the Latin rite. This action not unnaturally set up against them a strong body of opponents in the native Abyssinian priesthood. For a time, however, the civilisation they introduced, and their trading connection with India, made a great impression on the king and chieftains of Ethiopia, until, as will be seen later on, the country became suspicious of Portuguese intentions, observing the facility with which parts of East Africa, India, and the shores of the Persian Gulf had been conquered and occupied by the Portuguese. But before this jealousy was to culminate in the expulsion of the Portuguese from Abyssinia one hundred years later, the Christian rulers of that country were forced to appeal to Portugal for help and armed intervention. As already mentioned in Chapter V., an attack on Abyssinia had been made by a Muhammadan chieftain of the Danakil country, — Muhammad Granye, or Muhammad the Lame. This man was probably of Somali race, and ruled the country round about Tajurra Bay, — the French Somaliland of to-day. In alliance with the Arabs and Turks, he not only created the Somali kingdom of Adel, but ravaged the greater

part of Abyssinia. His policy was distinctly anti-Christian, and it is conceivable that he might have extinguished for ever the Christian Semite rule over Abyssinia but for the intervention of the Portuguese. The Emperor David, about 1530, managed to send emissaries (probably Jesuit priests) to Lisbon to implore the assistance of the King of Portugal. The result was that Dom Estevaõ da Gama (son of the celebrated Vasco[1]) as Portuguese Admiral entered the Red Sea with the Portuguese fleet, and landed at Masawa four hundred Portuguese under the command of his brother Christophoro da Gama. The Portuguese brought with them firearms, with which apparently the Muhammadan invaders of Abyssinia were at first unprovided. They threw into the struggle with the Somalis and Arabs all the crusading ardour with which their ancestors had driven the Moors out of Portugal. Christophoro da Gama was a heroic figure, a very paladin. He excited the admiration of his Somali opponent, who at one stage of the struggle offered him a safe conduct to the coast and the means of departing from Abyssinia worth all the honours of war. Nevertheless, the four hundred Portuguese inflicted reverse after reverse on the thousands that followed the banner of Muhammad Granye, who at that time was practically master even of the mountainous regions of Abyssinia. Some of the Portuguese went to the assistance of the fugitive

[1] It may be interesting to some to know that Vasco is a contraction of Velasco, meaning "hairy," and was a nickname often given to Portuguese in early days.

Emperor of Abyssinia. Those that remained under Christophoro da Gama, despite the constant defeats they inflicted on superior numbers, gradually found themselves isolated and vastly outnumbered. The Turks had taken alarm at Portuguese successes, and had sent to Muhammad Granye's assistance a train of artillery, while two thousand Arabs with muskets crossed over from Mokha and joined the Somalis. Thus reinforced, Muhammad Granye attacked the Portuguese entrenched camp, which he ultimately carried, when the unfortunate Christophoro da Gama had one arm broken and his knee shattered. A few of the Portuguese escaped and joined the Abyssinians, but most of them were slaughtered by Muhammad Granye. Christophoro da Gama, however, though wounded, managed with ten of his men to escape on horseback to a forest. Here he was captured by Muhammad Granye, who, after inflicting much torture on him, offered, in admiration of his bravery, to set him at liberty and assist him to return to India, if only he would abjure Christianity. The blazing indignation with which he answered this proposal so enraged Muhammad Granye that he struck off his head with a sword. The body of Dom Christophoro was then cut into quarters and his remains buried in separate places. Ultimately, however, the bones are supposed to have been gathered together by Roman Catholic Abyssinians, and some seventy years later the skull of the martyr was thought to have been found by Jeronimo Lobo.

Amongst the Portuguese who escaped slaughter at the hands of Muhammad Granye was Pedro Leon, who had been body-servant to Christophoro da Gama. Assisted by the advice of this little band of Portuguese heroes, the Emperor of Abyssinia at last made a successful stand against the Muhammadan invader. In the furious battle which ensued, the Portuguese directed all their energies against that part of the Somali army where Muhammad Granye was commanding. Pedro Leon, filled with a holy rage, singled out the Somali king from amongst his men, and shot him through the head with a musket. Muhammad Granye did not die at once, but managed to escape for some distance from the battlefield, being always, however, resolutely followed on horseback by Pedro Leon. At last Muhammad fell down dead, and Leon, having satisfied himself of the fact, cut off one of his ears to prove to the Emperor of Abyssinia that it was he who had avenged Dom Christophoro. After the death of their leader the Muhammadan forces melted away, and Christian Abyssinia slowly recovered from the greatest crisis in its fortunes prior to the Italian invasion of 1896.

In 1615[1] a notable advance in Nile exploration was made. Father Pedro Paez was shown by the Abyssinians the sources of the Blue Nile on the Sagada or

[1] In Lobo's book the date is given as 1613, but Bruce shows with some likelihood that, according to the native Abyssinian chronicles, the date of Paez' visit to the sources of the Blue Nile was probably 1615. In the Latin version of Paez' account of his travels, published at Rome in 1652 by the Jesuit Athanasius Kircher, the date given is the 21st of April, 1618.

Sakala Mountain in the western part of the province of Gojam. Paez mentions that the river, before it enters Lake Tsana, is styled the Jemma, a term which scarcely differs from its name at the present day. He also alludes to, though he does not describe very carefully, Lake Tsana.

In 1622 Father Jeronimo Lobo left Lisbon and proceeded to Goa, whence, after staying for more than a year, he started for Abyssinia. News had reached the Portuguese at Goa, from such of the missionaries as remained in Abyssinia, that the Emperor of that country had decided to join the Roman Church. A pressing demand was made for more Portuguese missionaries to strengthen this conversion, and the missionaries were advised to enter Ethiopia by way of the river Nile, through Dongola and Sennar. Unfortunately the secretary to the missionaries in Abyssinia mixed up the word Dancala (Dongola) with the country of the Danakil (on the Red Sea),[1] and advised the Jesuits at Goa to land at Zeila (Somaliland), and make their way through the Danakil country to Abyssinia. It was attempted to carry out this unfortunate advice. The eight missionaries who started from Goa were to divide into two companies, one to go to Zeila, and the other to land at Melinda (Malindi) on the Zanzibar coast, and thence make their way overland to Abyssinia, — rather a "large order" at that date (to use modern slang). Those that went by sea to Zeila were seized by the Turks,

[1] See page 30.

though finally released at the intercession of the Emperor of Abyssinia, who bribed the Turkish Pasha with the present of a zebra.[1] The other four missionaries, among whom Lobo was one, were again divided into two lots. Two of the fathers that were to attempt entering southern Abyssinia from Somaliland were duly landed at Zeila. A Muhammadan chieftain who was styled king of the country (probably in the neighbourhood of Tajurra Bay) seized these unfortunate missionaries and threw them into prison. In spite of the entreaties of the Emperor of Abyssinia, this Muhammadan chieftain (some relation of the Muhammad Granye who had been killed by the Portuguese when he invaded Abyssinia seventy years previously) finally had the Jesuits beheaded.

Father Lobo and a companion were conveyed by a Portuguese ship to the island of Lamu on the Zanzibar coast. Thence with great difficulty they made their way in a boat along the coast to the mouth of the Juba River, where they came into contact with the "Galles,"[2] probably the existing Ogadein Somalis. These boisterous people soon made it apparent to the missionaries that any journey overland from Kismayu

[1] Probably, from the description given, *Equus grevyi;* so that this, the largest, rarest, and the latest described of all the zebras, was probably the first example of the striped horse to receive that name at the hands of the Portuguese, and become known to Europe. The name is spelt "zevra" in Father Lobo's account, in some versions "zeura."

[2] The modern term, Gala or Galla, used to denominate that section of the Hamite people closely akin to the Somalis yet heathen and dwelling inland, is derived through the Portuguese from an Abyssinian cant term meaning "wild," "savage." It is unrecognized by the "Gallas" themselves.

to Zeila and Abyssinia was an impossibility; so, after many hardships, they eventually made their way back to Mombasa and India.

In 1625[1] Lobo and his companion once more started for Abyssinia, and this time sailed past Sokotra Island and Cape Guardafui, and finally landed at Baylur (Bailul), a port opposite Mokha, on the coast of the little known Danakil country. Here they received a very friendly reception, owing to the precautions taken by the Emperor of Abyssinia; and the two Portuguese missionaries actually made their way through the country of the fierce Danakil and across the salt deserts and blazing steppes of that inhospitable region, which along the same route has probably never since been traversed by Europeans. "Our clothes tattered, and our feet bloody," they climbed the Abyssinian mountains, rejoicing at the cool temperature, running water, and singing birds, and at length reached the Jesuit settlement of Fremona.[2] After undergoing many risks and dangers owing to the hostility with which the Abyssinians of Tigre regarded the Latin Christianity introduced by the Jesuits, Lobo started for the kingdom of Damot, which is in the

[1] Father Lobo gives an excellent description of the coasts of the Red Sea as known to the Portuguese at the beginning of the seventeenth century. Among other places that are probably mentioned for the first time is Suakin, which is written "Suaquem."

[2] Fremona, the first and principal seat of the Jesuits, was nine or ten miles from Axum. It was originally called Maigoga, but the name Fremona was given to it by the Portuguese Jesuits as being the Abyssinian version of Frumentius, who was the so-called Apostle of Abyssinia, and converted the rulers of that country to the Greek Church in the fourth century.

southern part of Abyssinia proper, between the Blue Nile and Lake Tsana. Prior to his crossing the Blue Nile, he had paid a ceremonial visit to the Emperor of Abyssinia. He mentions that the Blue Nile (which he not unnaturally considers to be the main stream) is called by the Abyssinians Abavi. This may be an older form than Abai, and is perhaps a little nearer to the Hellenised Astapus. The Blue Nile, he found, as his predecessor Paez had declared, takes its rise on the declivity of a mountain called Sakala (Sagada), some distance to the south-southwest of Lake Tsana. The source of the Blue Nile he describes as follows: "This spring, or rather these two springs, are two holes, each about two feet in diameter, a short distance from each other. One is about five feet and a half in depth. . . . The other, which is somewhat less, has no bottom. We were assured by the inhabitants that none had ever been found. It is believed here that these springs are the vents of a great subterranean lake, and they have this circumstance to favour their opinion: that the ground is always moist, and so soft that the water boils up under foot as one walks upon it. This is more remarkable after rain, for then the ground yields and sinks so much that I believe it is chiefly supported by roots of trees that are interwoven one with another." Father Lobo declares that the infant Blue Nile (which bears the name of Jimma) only enters Lake Tsana[1] on the southwest to leave that lake

[1] Lake Tsana is usually styled by Lobo and the earlier Portuguese travellers Dambia (Dembea); but they also give it the name of Sena, which is obviously the same as Bruce's version of Tsana.

not far from its entry, turning abruptly to the east and south. It crosses Lake Tsana only at one end, "with so violent a rapidity that the waters of the Nile may be distinguished through all the passage, which is six leagues." Fifteen miles from the point where the Nile leaves Lake Tsana it "forms one of the most beautiful waterfalls in the world," under which Father Lobo rested himself "for the sake of the coolness." He was charmed "with the thousand delightful rainbows which the sunbeams painted on the water in all their shining and lovely colours. The fall of this mighty stream from so great a height makes a noise which may be heard from a considerable distance, and the mist rising from this fall of water may be seen much further than the noise can be heard." Father Lobo notes that at the cataracts which succeeded this splendid fall there was a bridge of timber (logs) over which the whole Abyssinian army had recently passed, but he goes on to state that the Emperor had since built a bridge of one arch in the same place, for which purpose masons were imported from India. This stone bridge was the first erected in Abyssinia.

Father Lobo makes a truthful observation regarding the source of the Nile floods, believing them to arise rather from the excessive rainfall on the high mountains of Abyssinia than from the melting of the snows in the summer. He declares, in fact, that he only saw snow on the Samien and Namera mountains, and in small quantity.

As to the country of Damot, to the south of Lake

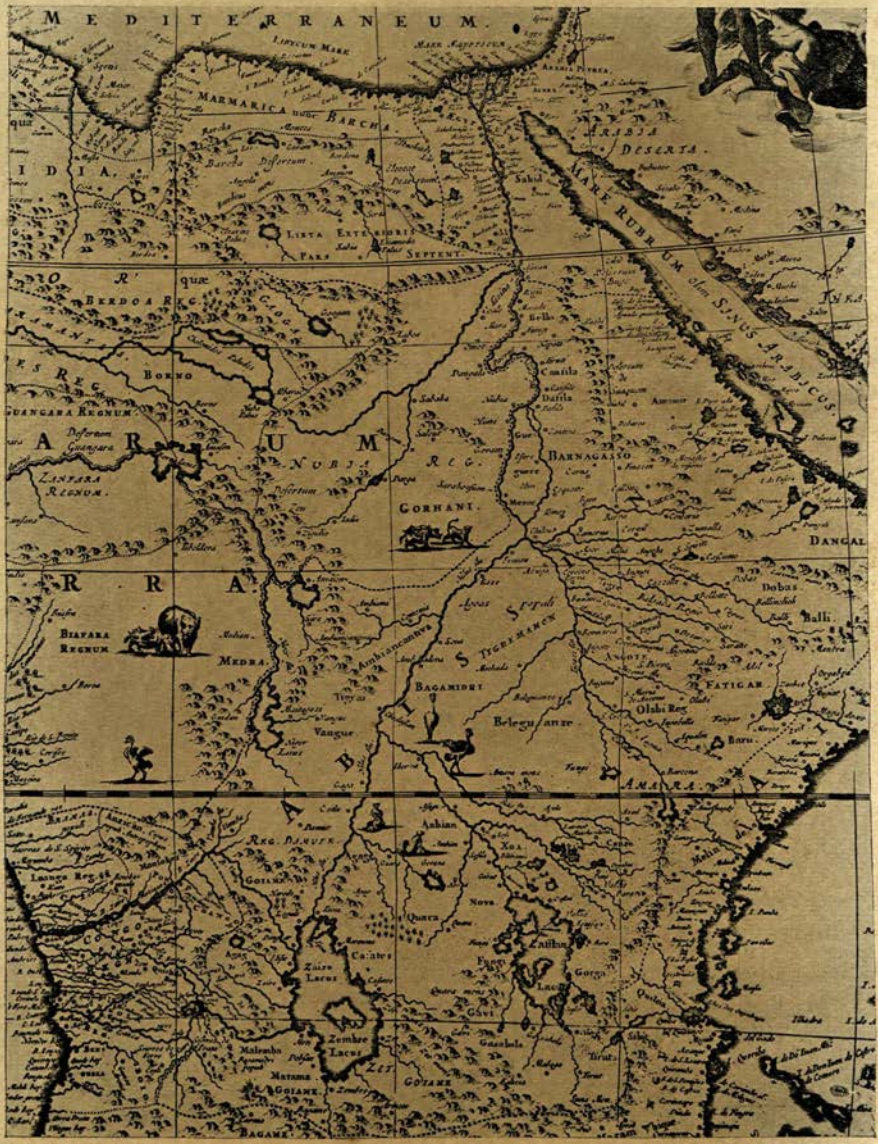
Tsana, in which he was sent to reside for a time, he expatiates enthusiastically on its beauty, fertility, and perfect climate. He also describes here — first of all Europeans — the wild banana, or Ensete, the name of which he declares means "the tree for hunger," though it is difficult to understand, from our subsequent knowledge of the wild banana and from Father Lobo's description, how it can be used as an article of food, as its fruit is almost inedible, while the leaves and watery trunk are quite unfit for food.

But Lobo's residence in Damot was not lengthy, as, owing to the jealous suspicions of the Abyssinians, he was sent back to reside with the rest of the Jesuits in Tigre. Their settlement of Fremona, where some hundred Portuguese priests and seminarists were established, was attacked by the Abyssinians. The Portuguese defended themselves bravely, and for a time there was a truce. The friendly Emperor of Abyssinia had died, and the subsidiary chiefs all believed that Portugal intended to invade and annex Abyssinia. The prowess of the four hundred Portuguese who in the preceding century had, as the allies of the Abyssinians, completely routed the Muhammadan invaders, made them feel that a few thousand Portuguese warriors would soon add Abyssinia to the Portuguese Empire. At this juncture the Portuguese sent a strong expedition to chastise the Sultan of Tajurra who had [redacted]he missionaries.

[redacted]r attempting to flee from Abyssinia and make [redacted]y to the coast of the Red Sea, the whole of the

Portuguese colony of Fremona was handed over to the Turks at Masawa, and by them sent to Suakin. They underwent cruel sufferings at the hands of the Turks, but some of the missionaries, including Father Lobo, were allowed to ransom themselves, and return in a ship to India. Here Lobo endeavoured to induce the Viceroy of Portuguese India to send an expedition against the Turks of Suakin in order to release the priests that were left in their hands; but the viceroy declined to take this step without the consent of the Portuguese Government. Accordingly Father Lobo started for Lisbon, was shipwrecked on the coast of Natal, fell into the hands of the Dutch, but in spite of his extraordinary hardships, and difficulties wellnigh insurmountable, actually returned to Portugal; whence he went to plead at Rome the cause of Latin Christianity in Abyssinia. The missionaries left in the hands of the Turks at Suakin were eventually ransomed, and returned to India. The few Portuguese missionaries who for one cause or another were left in Abyssinia were all killed by the Abyssinians.

Portuguese contact with Abyssinia, the Portuguese conquest of Zanzibar and long occupation of Mombassa very naturally led to this people acquiring in their intercourse with Arabs and Abyssinians some idea of the geography of inner Africa, — ideas which were added to by the information collected on the West Coast. Nevertheless, strange to say, they less correct in their surmises than Claudius mæus. The maps of the Nile and the geogr



[*Face page* 59.

DAPPER'S MAP (AMSTERDAM, 1686).

Giving the falsified results of Portuguese explorations in East Africa.

inner Africa which they formed on the reports of their explorers and missionaries were altogether misleading. Their delineation of the whole interior of the western half of Africa bears absolutely no correspondence to actuality in geographical features; moreover, they were so ignorant of the simplest principles of hydrography as to make one lake give rise to several great rivers.[1] The only element of truth in all their guesses at the inner waterways of Africa lay in their delineation of Abyssinia. They put down with some likeness to actuality the Blue Nile, and they named correctly the principal countries that lie to the south of Abyssinia proper. But this contribution was vitiated by the exaggerations regarding distances, — exaggerations perpetrated chiefly by map-makers, — so that the Blue Nile and its tributaries, and such provinces as Gojam, Kaffa, Shoa, etc., instead of lying a considerable distance north of the equator, were dragged far to the south of the line, and these features were even made to encroach on the basin of the Congo. A good idea of the extent of Portuguese knowledge and fable concerning the geography of inner Africa may be obtained from a glance at the celebrated Vatican map of Africa which, from information derived from the Portuguese and from the Abyssinian converts, was painted on one of the panels of a gallery at the Vatican in the seventeenth century.

[1] Some of the blame undoubtedly must be laid on the shoulders of the Dutch and Saxon map-makers, who used and distorted Portuguese information.

Several Portuguese adventurers were despatched in the sixteenth century across Africa from west to east to strike the Nile, but they were never heard of any more. Credit must be given to the Portuguese Jesuits for amassing much accurate knowledge regarding the scenery, people, and products of Abyssinia. There is a wonderfully interesting and very beautiful piece of tapestry in the Governor's Palace at Valletta (Malta), which it is supposed was executed early in the eighteenth century from the information supplied by the Portuguese Jesuits. The characteristic fauna and flora, domestic animals, houses, and natives of Abyssinia are portrayed in this tapestry with great fidelity to nature. Later in the eighteenth century Portugal began to take up with some earnestness the scientific exploration of such African territories as remained to her after the revolt and the attacks of the East Coast Arabs, but these journeys and their results do not come within the scope of the present volume. Portuguese influence over Abyssinia had disappeared by the end of the seventeenth century, and almost all that remains of it is the name which the civilised world applies to this country. In the southeastern part of this powerful African state is the river Hawash, or Habash, which attempts to reach the Red Sea but finally expires in the barren sands of the Danakil country. The name of this river had been applied by the Arabs to the Semiticised people living north and west of its course. "Habash, Habshi"[1] was

[1] *Habsh, Habshi* is the name given to Negroes at the present day in Hindustani.

transmuted through the Portuguese speech to Abessi, Abessim, Abessinia. This in time was further misspelt in French and English as Abyssinie, Abyssinia.

The Turks had always viewed with a great deal of jealousy and anger the attempts of Portugal to establish herself as mistress of the navigation of the Red Sea, Indian Ocean, Persian Gulf, and Arabian Sea. Consequently the Turks occupied and held Masawa, and drove away Europeans in the sixteenth and seventeenth centuries from easy contact with Abyssinia, which between 1633 and 1769 was only visited by one European, a French doctor named Poncet (1698).

Several Abyssinian converts of the Portuguese missionaries who had become devotedly attached to the Roman Catholic form of the Christian faith had proceeded to Italy for further instructions. Indeed, all through the fifteenth, sixteenth, seventeenth, and eighteenth centuries Abyssinians constantly journeyed to Italy. They were able to traverse the Muhammadan countries of Nubia and Egypt very easily, either disguised as Copts or affecting to be Muhammadans. From the ports of Egypt they easily made their way to Venice or to Naples as traders. Four of these Christian Abyssinians, one of them known as Gregory, were established at Rome in the middle of the seventeenth century.

At Erfurt in Saxony was born, in 1624, the celebrated Ludolf, whose real name was Hiob Leutholf. Ludolf at an early age exhibited a remarkable talent for acquiring languages, and he had a special bent for

the Semitic tongues. Having been entrusted with a secret mission to Rome by the Swedish Ambassador at Paris, Leutholf, or Ludolf, encountered in Rome these four Abyssinians. He spent three years in enthusiastically studying Amharic, and also the older liturgical tongue of Ethiopia, the Gez or Ge'ez. By the help of these Abyssinians he compiled a grammar of the Amharic, and dictionaries of that tongue and of the Ge'ez. He also wrote a history of Ethiopia; but, above all (as far as this book is concerned), he did important work in elucidating the geography of the northeastern portion of the Nile basin, and the information he received from Gregory and the other Abyssinians he carefully collated with the works of the Portuguese Jesuits. Although Ludolf never visited even Egypt, he did a great deal to assist the map-makers of his time to delineate the course of the Blue Nile and of the Atbara with its various affluents. Ludolf passed a good many years of his life in the diplomatic service of the Duke of Saxe-Gotha. Curiously enough, he not only visited England repeatedly, but became an Anglophil, and desired to establish trading connections between England and Abyssinia. The troubles consequent on James II.'s reign, and the jealous opposition of the Coptic Church in Egypt baulked his scheme, which was much taken up in high quarters in England, and which might, if it had been carried out, have strangely anticipated events in northeast Africa by establishing British influence in Egypt and Abyssinia at the end of the seventeenth century.

Attracted towards the mystery of the Nile and of the so-called Christian civilisation of Abyssinia, that Duke of Saxe-Gotha who had taken Ludolf into his diplomatic service caused another Saxon, named Michael Wansleb (born at Erfurt), to learn Amharic first of all from Ludolf, and then to go to Abyssinia. Here he was expected to explore, and also to collect liturgies and other books likely to throw light on the Abyssinian version of Christianity, which the Duke believed would be found to be in harmony with Lutheranism. Wansleb never succeeded in getting to Abyssinia, but journeyed for some distance up the Nile and wrote on the subject of Egypt, publishing also in London, between 1661 and 1671, a number of Abyssinian liturgies and dissertations on the Amharic language.

In 1668 the then recently founded Royal Society in England took up the question of the Portuguese explorations of the Nile sources, and ordered that the translation of a Portuguese manuscript by Sir Peter Wyche should be printed and published. This little work is described as "A Short Relation of the River Nile, etc.: Writings by an Eye-witness who lived many years in the Abyssine Empire." Sir Peter Wyche probably did little else than translate and collate what seemed to him the most interesting extracts from the works of Paez and Lobo. These works were seemingly written first of all in Portuguese, but were never printed in that language. Paez' manuscript was translated into Latin and published

at Rome in 1652 by the Jesuit Athanasius Kircher. The Portuguese manuscript of Jeronimo Lobo was translated at length into English, and published in London by the Jesuit father F. Balthazar Tellez. Seemingly, however, this book was issued either in a Portuguese or a Latin version at Lisbon in 1670. It was translated into French from the original Portuguese manuscript by M. Le Grand in the early part of the eighteenth century, and this translation, with some additional matter, was rendered into English and published in London in 1735.

The Royal Society's paraphrase of which Sir Peter Wyche was author contains no new matter, but its date is worthy of remark,—1668. It would seem as though Sir Peter Wyche had had access to Lobo's manuscript, or to the joint works of Lobo and Paez, before the actual publication of Lobo's book in 1670. It is further remarkable as showing the intelligent interest taken in these geographical questions at that day by the cultivated classes in England.

CHAPTER VII

FRENCH INQUIRIES AND D'ANVILLE'S MAPS

TOWARDS the close of the seventeenth century Louis XIV. of France had begun to make the influence of his country widely felt in the Mediterranean, though before his time Richelieu had cast an eye over the Levant with the idea of supporting French commerce. Louis XIV. even entered into an alliance with Turkey, in which he cut rather a foolish figure, but which at any rate enabled him to send Frenchmen to report on the trade of Egypt. It is stated that the result of these inquiries was a scheme for the conquering and colonising of Egypt which was laid before that monarch and remained in the archives of the French government until it caught the attention of Napoleon Bonaparte when he rose to power. Louis XIV. either did not notice the project or put it aside; but nevertheless, during half of the seventeenth and the whole of the eighteenth century Frenchmen were beginning to interest themselves in the exploration of Egypt, Abyssinia, and the Nile. When the Portuguese missionaries were irrevocably expelled from Abyssinia, or were slaughtered in that country by Abyssinians, or died under the hands of the Turks of Masawa or Suakin, it was suggested to

the Pope that perhaps French missionaries might prove more acceptable to Ethiopia. Not a few Roman Catholic Abyssinians found their way to Rome during the seventeenth century, where, as we know, they imparted very valuable information to the learned Saxon philologist Ludolf. These Ethiopians seem to have conveyed the idea to the Papal Court that it was not so much Roman Christianity that was objected to as political ambitions of the Portuguese. But late in the seventeenth century *any* missionaries teaching the Latin rite had become unacceptable to the Abyssinians, and the project of sending French Capuchins to take the place of the Portuguese Jesuits came to nothing. But the Emperor of Abyssinia had one reason for regretting the expulsion of the Jesuits, — an expulsion to which he personally was less favourable than were his powerful vassal chiefs of Tigre and Amhara, — he had relied on the Portuguese Jesuits for medical treatment.

At the close of the seventeenth century an agent of the then ruler of Abyssinia was suffering from stone, and stood in urgent need of a good surgeon. His agent in Egypt (Haji Ali) was instructed to inquire for the services of a European who could operate, and at first endeavoured to find one amongst the Franciscan missionaries, who were Italians. But the Consul of France at Alexandria, hearing of this, resolved to obtain the post for a French physician, and eventually Jacques Charles Poncet, a surgeon from the Franche Comté, was engaged, and it was decided that he should

journey to Abyssinia accompanied by Father Brèvedent, a French Jesuit. They reached the country of Sennar in 1699. Soon afterwards Father Brèvedent [illegible]d, but Poncet succeeded in reaching Abyssinia, and [illegible]orded medical assistance to the Emperor. But his [illegible]val in the country, together with the rumour that [illegible]was being followed by French Jesuit priests (who [illegible] matter of fact were massacred in Egypt), so [illegible]ised the animosities of the Abyssinian clerics that [illegible]was hurried out of the country, and returned to [illegible]e (Rome) in 1700. Notwithstanding his ex-[illegible]ces, he mixed himself up with the intrigues of an [illegible]sinian agent and a priest at Rome for the despatch [illegible]rench missionaries to Abyssinia. The Pope was [illegible]ent in the matter, and determined to find out [illegible]ruth by a Maronite priest, Gabriel, whom he [illegible]tched from Cairo. Poncet, however, returned [illegible] Egypt in 1703, was joined by a Jesuit, and set out for Jidda in Arabia, but the mission came to grief. He quarrelled with the Abyssinian envoy, Murat, whose pretensions to represent the Abyssinian government were probably mythical, but who had accompanied Poncet to Italy. Poncet never succeeded in returning to Abyssinia, but instead drifted away to Persia and died at Ispahan.

Louis XIV. now took the matter up, urged to interference in the affairs of Abyssinia by the French Consul at Alexandria. He decided to despatch a mission to Ethiopia to open up diplomatic relations with the Christian Emperor. Janus de Noir, le Sieur du

Roule, was appointed envoy and placed at the head of this mission. The consent of the Turkish government was given to the passage through Egypt. The expedition left France at the end of 1703, and af a stormy voyage of four months (!) landed at Al andria. Thence it pursued its way to Cairo, and on up the Nile and the Blue Nile to the countr Sennar, a region at that time to a great extent u Abyssinian political influence. Here the cupidity suspicion of the local chieftain were aroused. mission was attacked, and M. du Roule was sacred. The Emperor of Abyssinia expressed functory regrets, and then, to use a modern pl "the incident was closed," Abyssinia being in an unattackable position as to make any Frenc prisals impossible.

Here perhaps may be mentioned a curious at at Nile exploration which in an indirect way wa connected with French enterprise at this period. The failure of M. du Roule to reach Abyssinia made a great impression on the mind of a Frenchman named Joseph le Roux, Count of Desneval. This nobleman had been in the Danish navy for many years, leaving that service in 1739 with the rank of Rear Admiral. All this time he had been giving his attention with laborious stupidity to the Nile problem, and was convinced that he "had found the proper key to enter these regions," by studying in Denmark the reports of unsuccessful travellers. Accordingly, in 1739, he started with his wife for Cairo, accompanied by Lieu-

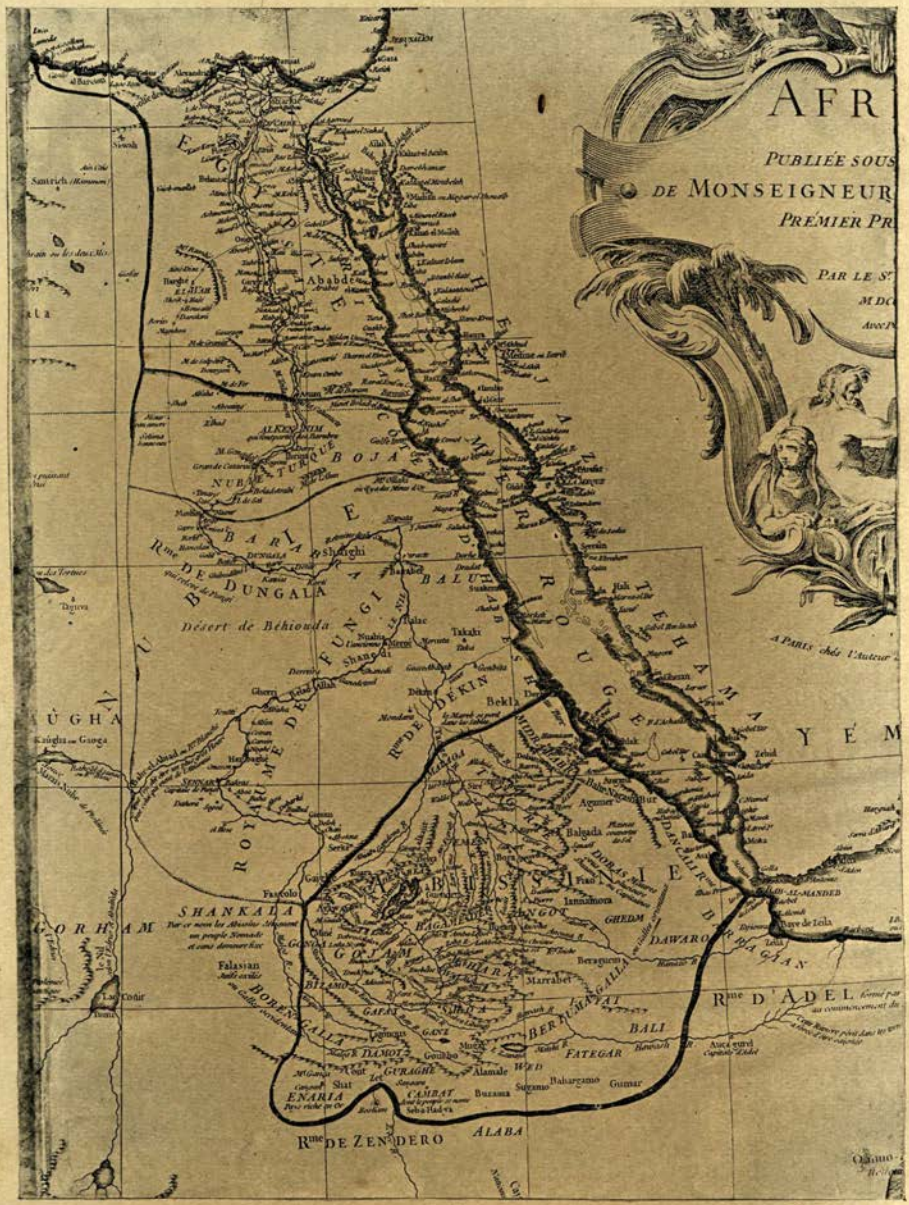
en, a Dane. None of the party knew a Arabic. The expedition first got into trouble through the haughty manners of the Coun- ho, becoming involved in a street row, slashed people right and left with a pair of scissors. t Desneval penetrated some distance into Nubia, is lieutenant, Norden, went as far (possibly) as r, which he mentions under its older name of . But the Count was obliged to turn back, and n was imprisoned by the Turkish Governor, and escaped to Egypt with his life. The Count then d on an extraordinary expedition. He decided in a commission from Spain and start with a ships to circumnavigate Africa, enter the Red d so proceed to Abyssinia. But becoming in- in the war which was then raging between and England, his ship was captured by the , and he was sent as a prisoner of war to , where his projects of Nile exploration came end.

e Dutch in the seventeenth century, and some of henish geographers of western Germany, had ed remarkable maps of Africa, but with the n of the west and south, these maps, in so he Nile basin was concerned, were based on rmation presented to the world by the Portu- esuits Alvarez, Paez, and Lobo, and on the ng information concerning the geography of ia collected by the Saxon philologist Ludolf mmuning in Italy with the Abyssinian envoys.

These maps, as already related, did injus
Portuguese by enormously exaggerating the
Abyssinia. In fact, Abyssinian geography w
tended by these Dutch interpreters of Portu
travel notes far into the south and west of A
so that Abyssinian place names such as Go
Kaffa, Enarea, and the lakes and rivers of Abys
were pushed down to the vicinity of the Zambezi
right across the Congo basin. These maps, how
continued to maintain European interest in Africa
ploration, while the French consuls in Egypt and
British travellers in that country began to trans
formation (derived for the most part from Cop
Circassians) regarding the main course of the

In 1772 a French cartographer of a much
order than had hitherto appeared — D'Anville —
lished a notable map of Africa, in which he c
away much of the fantastic geography whic
Dutch and Germans had developed from the
rations of the Portuguese. D'Anville's map of A
marks an important stage in the exploration of
Nile basin, as it approaches the maps of to-day
more than any previous chart. The outline
African coast is given more correctly than here
while D'Anville brushes away the exaggerati
Dutch and Portuguese cartographers, who had
ually extended the geography of Abyssinia ti
had connected with the Nile all the main riv
Africa in an absurd system of natural canalisa

Jean Baptiste Bourguignon d'Anville was



[Face page 71.

D'Anville's Map of the Nile Basin.
(Published 1729 ; Revised 1772.)

Paris in 1697. From his boyhood he devoted himself to the study of geography, and met with considerable encouragement from the learned societies of Paris and from the Court. D'Anville's geography of Abyssinia was mainly based on the information collected by the Portuguese missionaries and by Ludolf. The result is so strikingly like the map subsequently constructed by Bruce as the result of his explorations, that it shows how very much information had already been collected by the Portuguese. The last edition of this map bears the date 1772, a date which is one year before Bruce could make the result of his explorations known. Were these dates not certain, it would almost have seemed as if D'Anville had obtained access to Bruce's information and used it in his geography of Abyssinia. A great mistake in D'Anville's map, however, is made in the delineation of the course of the Nile in its great Dongola bend. Here the Nile is made to approach the Red Sea at least a hundred miles nearer than is the case. There is a fairly correct suggestion of the Bahr-al-Ghazal (which is named) and the Bahr-al-Arab. The White Nile above the confluence of the Bahr-al-Ghazal is indicated more timidly. Its course passes through a somewhat vague lake, which may be due to a rumour of Lake Albert. Beyond this lake the sources of the White Nile are divided, and made to flow from two lakelets ten degrees north of the equator. To the south of these ultimate sources is the range of the Mountains of the Moon.

On D'Anville's map may be seen for the first time several modern place and river names connected with the Nile, such as Shendi (spelled Shanedi) and Bahr-al-Ghazal. Such other terms as Sennar, the Boran Gala tribe, and the Shankala Negroes are also given; but these were first mentioned by the Portuguese and by the Abyssinian teachers of Ludolf one hundred years earlier. There is also a hint at the Unyamwezi country south of the Victoria Nyanza under the name of Moenemuji, though this also was first mentioned by the Portuguese.

D'Anville, who followed to some extent the Sicilian maps of the eleventh century in his delineation of the Nile and inner Africa, made the opposite mistake to Ptolemy and the Portuguese. They carried the main Nile and the geography of Abyssinia many degrees too far to the south. D'Anville placed the sources of the Nile and the Bahr-al-Ghazal something like ten degrees too far to the north. At the same time his map marked a considerable advance in the correct delineation of Nile geography as well as in that of the Niger and the Zambezi.

CHAPTER VIII

BRUCE AND THE NILE: SONNINI, BROWNE, AND BONAPARTE

AT the beginning of the eighteenth century there was a decline in Muhammadan fanaticism which in the preceding centuries had so zealously guarded the portals of African discovery. This was partly due to the increase of friendliness and commercial relations between England and France on the one hand and the Turkish Empire on the other. Consuls were established to safeguard the interests of British merchants in the tributary Turkish states of Barbary and in Egypt. Another stimulus to friendly relations was the coffee trade. Coffee had been introduced from Turkey into Europe in the seventeenth century. By the beginning of the eighteenth the demand for it in the civilised countries of northern and central Europe became so great that British and French ships began to ply on the Red Sea and in the Levant merely for the transport of coffee from the ports of southern Arabia to Suez, and thence (*via* Alexandria) to France and England. It became possible for Frenchmen and Englishmen to travel in Turkish Egypt without undue risk of maltreatment, especially if they obtained permission to do so through their consuls.

Almost the first English traveller to start on the Nile quest in the eighteenth century was Richard Pococke, a learned divine (Doctor of Laws and Fellow of the Royal Society), who afterwards became Bishop of Meath. Pococke was remarkable for his knowledge of Greek. He travelled a great deal in the Levant between 1737 and 1740, and made at least two journeys to Egypt, during which he followed the Nile up to the First Cataract. At that period the description of the journey from England to Egypt has a rather modern sound. The traveller proceeds without much difficulty overland from Calais to Leghorn, and from this Tuscan port sails round Sicily to Alexandria, sometimes to Rosetta.

The book in which Pococke describes his adventures and researches[1] is also in advance of its times, and in printing and illustrations might well have been credited to the beginning of the nineteenth century. Pococke devoted himself mainly to making plans and drawings of Egyptian monuments, Coptic churches, and Muhammadan mosques. He collected a great many Greek inscriptions (amongst others, the interesting Greek and Latin sentences scratched on the legs of Memnon), and besides many plans and drawings of buildings which illustrate his book, are some excellent pictures of plants characteristic of Egypt. Especially noteworthy are the botanical drawings of the branching Hyphæne palm. These etchings would

[1] A Description of the East and some other countries, Vol. I., by Richard Pococke, LL.D., F. R. S. London, 1743.

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THE BRANCHING *Hyphæne* PALM (*Hyphæne thebaica*).
Taken from interior of Nasr Fort (R. Sobat).

not be out of place in the most modern work on Africa. Pococke ascended the Nile to the First Cataract, then the limit of Turkish rule.

One amusing feature in Pococke's sumptuous volumes is the number of dedications to British statesmen and notabilities of that date. The book in general is dedicated to the Earl of Pembroke and Montgomery, "Groom of the Stole to His Majesty George II." His careful map of the Nile from the First Cataract to the Mediterranean is dedicated to Lord Carteret, "First Secretary to the King." The map of Cairo and its environs (a very interesting one with reference to the modern growth of the city) is inscribed to the Earl of Stafford. These dedications, however, seem to foreshadow a growing interest on the part of English noblemen in the problem of the Nile, — an interest which, as will now be shown, played such a part in the expedition of Bruce.

James Bruce was the first of the great group of notable British explorers who between them in a century and a half have laid bare to the world nearly every notable feature in the geography of the Nile basin. This remarkable Scotchman was born at Kinnaird House, Stirlingshire, in 1730. He was the son of a land-owner, and was educated at Harrow. Soon after leaving school he was put (against his will) into the wine trade with Spain and northern Portugal. In this pursuit he visited Galicia and the northwest coast of the Spanish peninsula. His trade, never very successful, was interrupted by the war with Spain, which

broke out in 1758. Bruce conceived a plan for landing a British force at Ferrol, in Galicia, and to prosecute this idea he obtained an introduction to the Earl of Halifax, then president of the Board of Trade. George Montagu Dunk, second Earl of Halifax, was a widely read man,[1] who took an interest in many subjects, amongst others the mystery of the Nile. He is a curious link in that chain of persons who have contributed efforts toward the revelation to the civilised world of the whole course of this wonderful river. Lord Halifax brushed aside the scheme for landing a force at Ferrol as unnecessary and impracticable. But he began to consult Bruce about the Nile Quest, as a man who had travelled considerably about Europe even at that period — his travels having been undertaken to assuage the grief caused by the loss of his wife. Bruce took up the matter with energy. Lord Halifax, therefore, secured for him the appointment of consul at Algiers, with the idea that this place and post would enable Bruce to prepare for the exploration of the Nile by learning Arabic and acquiring information concerning the interior of Africa. Apparently the consulate at Algiers in those days was not harassed with any restrictions regarding residence; indeed, Bruce's consular duties appear to have been merely nominal, for he was only a year at Algiers, and spent it in the

[1] He filled many posts between 1725 and his death in 1771. He desired to be made Secretary of State for the West Indies, but George II. refused. His efforts to foster British trade and colonial expansion were much appreciated by merchants and colonials, and Halifax, in Nova Scotia, is named after him.

study of Arabic and Turkish.[1] In 1763 Bruce started on a remarkable tour through Tunis and Tripoli, in which he drew and measured (with the aid of a professional Italian draughtsman) the wonderful Roman ruins in those countries. He then extended his journeys to the islands of Rhodes and Cyprus, and explored Syria and Palestine. The greater part of the drawings which he made of buildings in all these Mediterranean lands are now stored in the British Museum.

At last, in the summer of 1786, Bruce landed at Alexandria, accompanied by the Italian artist-assistant, Balugano. He ascended the Nile as far as Assuan. Then, crossing the desert to the Red Sea coast, he took ship and sailed to Jiddah, the port of the Hajaz. After four months spent on the coast of Arabia, where apparently he met with no fanaticism, he sailed over to Masawa, the port of Abyssinia, and from this point travelled to the then capital, Gondar in Tigre. The Emperor of Abyssinia received him with great favour, gave him military rank, and enabled him to reach the course of the Blue Nile, which Bruce always held to be the main stream. Striking the Blue Nile in the country of Gojam near its exit from Lake Tsana, Bruce crossed the stream by its masonry bridge and travelled due west of the source of the river in the western part of Gojam. Bruce fixed with approximate correctness the latitude of the source of the Blue Nile on

[1] Algeria was then practically a dependency of Turkey, governed by Turks.

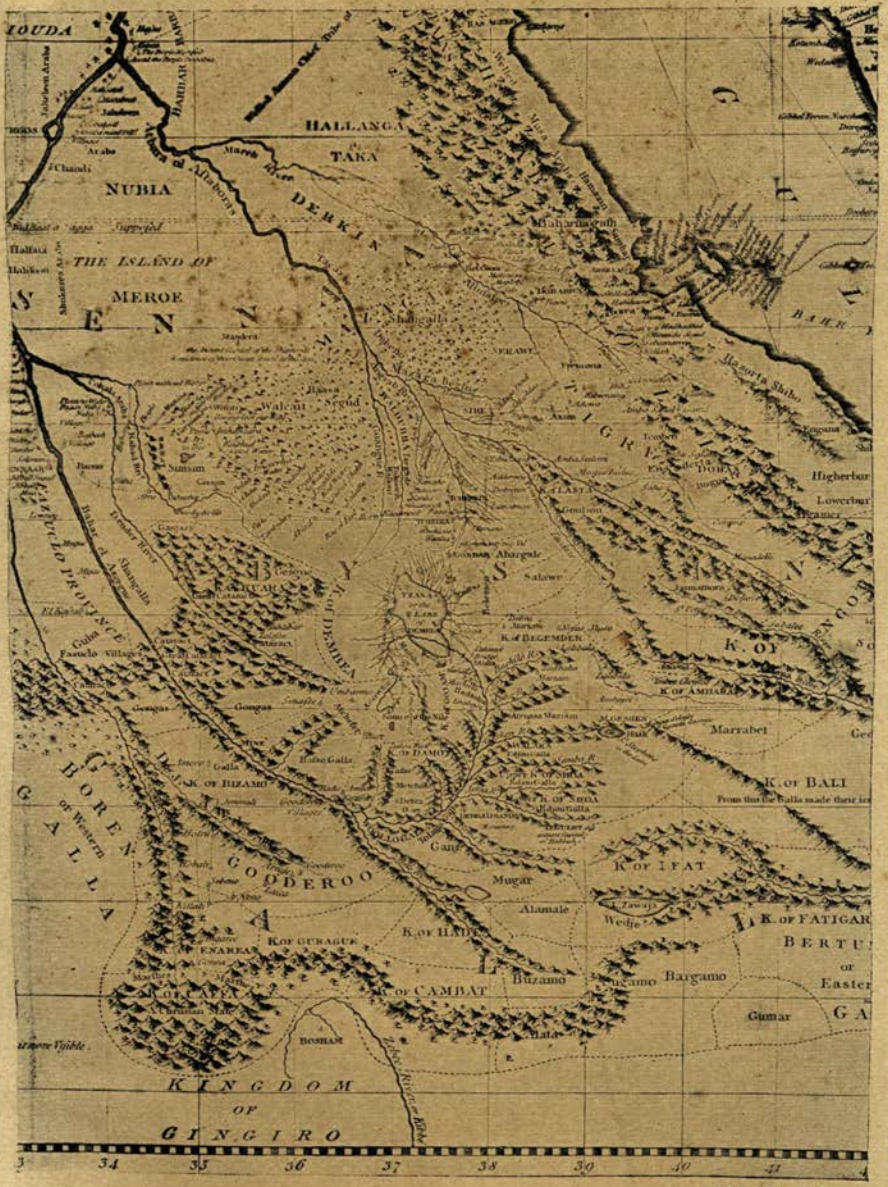
Sagada Mountain, and also the longitude, by observation of the first satellite of Jupiter. The latitude he fixed at 10° 55′ 25″, the longitude at 36° 55′ 30″ east of Greenwich. The present writer is not aware that any subsequent observations have much upset these computations of Bruce's. The latitude of the Blue Nile source is, therefore, approximately 11° north. As the Jesuits guessed it at 12°, they were not so much out in a surmise which, after all, was based on nothing but vague dead reckoning, and one cannot sympathise with Bruce when he sneers at them for their error. Bruce, in fact, was very bitter against the memory of Paez and Lobo when he learned from D'Anville that these missionaries had preceded him as discoverers of the Blue Nile sources. He admits the genuineness of Paez' reports, but endeavours to show that Lobo merely copied Paez' description, and did not himself visit the sources of the Blue Nile. In this contention I think he is unjust. There is certainly a great deal of correspondence between the accounts of Paez and Lobo, but Lobo enters into more detail than Paez, and as, after all, he is describing the same features, it is hardly surprising that his description should so closely parallel that of the man who preceded him by some ten years. As there is no doubt that Lobo was in the country round about Lake Tsana in the year 1625 or 1626, it would be surprising if he had not attempted to see the sources of the famous river.

Bruce brings out as strongly as the Jesuits the fact

er Jimma, which rises on Sagada Mountains with a strong observable current in a circular course through the southern part of Lake Tsana. Lake Tsana, indeed, would seem to be nothing but a huge volcanic crater which has been filled up by the Blue Nile. He calculates the approximate altitude of these sources at forty-eight hundred and seventy feet. Near the village of Sakala or Sagada is a marsh at the bottom of the Mountain of Gish. In this marsh there is a hillock of a circular form a few feet above the surface of the marsh, a more or less artificial altar raised by the people to the sources of their Nile. In the middle of this hillock is a hole, artificially made, or at least enlarged by the hand of man, and kept clear of grass or other aquatic plants. The water in it is perfectly pure and limpid, but has no ebullition or motion of any kind observable on its surface, though it overflows into a shallow trench running round the mound and entering the water in an eastward direction. The principal fountain of the Blue Nile is only about three feet across. Ten feet distant from this first source is another, only eleven inches broad. This would seem to be the deepest of the three sources, and the one which was pronounced unsoundable by Lobo. The water from these fountains is good, tasteless, and intensely cold.

Following by land the course of the Blue Nile down stream till he reached the confluence with the White Nile at the site of Khartum, Bruce then turned northwards and descended the main Nile to Berber.

From this point he travelled across the Nu[illegible] to Korosko, which place he reached with the difficulty, very many dying from thirst on the Having been obliged to abandon his caravan in the desert, he started back from Korosko with fresh camels and guides, and recovered his baggage from the desert. Bruce's journeys in Abyssinia and along the course of the Nile had occupied him nearly three years, from the middle of 1770 to the beginning of 1773. From Alexandria he made his way to Marseilles during a brief interval of peace between England and France. The cultivated Frenchmen of that day received him with the greatest kindness and *empressement*, and he spent some time in Paris conferring with Buffon and other scientific men. But in Paris he learned to his great chagrin that he was not the original discoverer of the source of the (Blue) Nile. D'Anville, the great map-maker, was able to prove to him that Lake Tsana and the main course of the Bahr-al-Azrak had been made known to Europe by the journeys of the Jesuit priests Paez and Lobo. Moreover this geographer attempted to convince Bruce that the Blue Nile was not the main stream, and that the mystery of the Nile sources remained at least two-thirds unexplored. It is curious, in fact, to reflect that D'Anville, by his industrious gathering up of all floating information, especially from French consuls in Egypt, was far more correct in his delineation of the Nile basin than Bruce himself, though D'Anville had published his map a year before Bruce's arrival in Paris.



[*Face page* 80.

BRUCE'S MAP OF THE NILE SOURCES.

On account of this chagrin, or for other reasons, Bruce delayed [1] the publication of his travels for seventeen years after his return to England. They were not published (in five volumes) until 1790. Strange to say, Bruce's admirable work, though so truthful [2] and convincing as one reads it now, was received with universal incredulity in Great Britain. Among the stories selected for special derision was the account constantly repeated by Bruce of the Abyssinian custom of bleeding cattle and drinking their blood, and, still more, of cutting raw flesh off the living animal, which is then turned out to graze (or at least that is the flippant rendering of the contemporary critic). As a matter of fact, these customs had been already reported by the Jesuits from one to two hundred years previously, nor is there any reason to suppose that Bruce departed from the exact truth in describing contemporary Abyssinian customs. A hundred years later East African travellers like New, Von der Decken,

[1] Though it is so stated, the delay was apparently caused by the complete breakdown of Bruce's health, a breakdown which obliged him to spend some time at Italian sulphur baths (Poretta). Bruce, before leaving Sennar and the regions of the Blue Nile, had received into his system the germ of the Guinea worm. This creature developed in the usual way. One day when Bruce was reading on a sofa at Cairo he felt an itching on his leg, and soon afterwards through the pimple thus raised appeared the head of the worm. Three inches of this parasite were wound off round a piece of silk, but on the ship which conveyed Bruce from Alexandria to Marseilles the surgeon clumsily broke off the portion of the worm extruding from the body. The remainder of the worm still in the leg caused the most terrible agony for thirty-five days, which Bruce had to spend in the lazaretto at Marseilles. Here, however, he received better surgical treatment. Nevertheless, for some time afterwards his leg gave him considerable trouble, and apparently, in 1774, he had to visit Italian sulphur baths.

[2] All except, perhaps, some of his stories of Nubia and Sennar.

Joseph Thomson, and the author of this book, noticed similar customs as regards blood-drinking on the part of the Masai and the Bantu races of Kilimanjaro and Kikuyu. The same writers constantly make allusion to the love of raw flesh on the part of most of the East African pastoral races, many of whom are more or less related to the Galas in blood (the foundation of the Abyssinian population is Gala). The actual truth about the cutting of steaks from the living animal seems to be this. It was sometimes customary (even if the custom has wholly died out at the present day) to slaughter a beast by degrees. The great arteries and the vital parts were avoided, and the palpitating, hot flesh was cut off strip by strip and devoured. But in all probability the creature was not as a general rule expected to live long after part of its flesh was removed. It was generally finished within two or three hours. Bruce, if I remember rightly, only relates one instance where, after two pieces of flesh had been removed from the buttocks of a cow, the skin was fastened up over the wound and the creature was driven on a little further to be finished on a later occasion. A summarised extract from Bruce's travels gives a vivid description of the way the Abyssinians feasted on raw meat:—

"In the capital, where one is safe from surprise at all times, or in the country villages, when the rains have become so constant that the valleys will not bear a horse to pass them, or that men cannot venture far from home through fear of being surrounded by sudden showers in

the mountains; in a word, when a man can say he is safe at home, and the spear and shield are hung up in the hall, a number of people of the best fashion in the villages, of both sexes, courtiers in the palaces or citizens in the town, meet together to dine between twelve and one o'clock. A long table is set in the middle of a large room, and benches beside it for a number of guests who are invited. Tables and benches the Portuguese introduced amongst them, but bull hides spread upon the ground served them before, as they now do in the camp and country.

"A cow or bull, one or more, as the company is numerous, is brought close to the door and its feet strongly tied. The skin that hangs down under its chin and throat is cut only so deep as to arrive at the fat, of which it totally consists, and by the separation of a few small blood-vessels six or seven drops of blood only fall upon the ground. They have no stone bench or altar upon which these cruel assassins lay the animal's head in this operation. The author, indeed, begs their pardon for calling them assassins, as they are not so merciful as to aim at the life, but, on the contrary, to keep the beast alive till he is nearly eaten up. Having satisfied the Mosaic law, according to their conception, by pouring these six or seven drops upon the ground, two or more of them fall to work. On the back of the beast, and on each side of the spine they cut skin deep; then, putting their fingers between the flesh and the skin, they begin to strip the hide of the animal half-way down his ribs, and so on to the buttock, cutting the skin wherever it hinders them commodiously to strip the poor animal bare. All the flesh on the buttocks is then cut off, and in solid, square pieces, without bones, or much effusion of blood; and the prodigious noise the animal makes is a signal for the company to sit down to table.

"There are then laid before every guest, instead of

plates, round cakes (if they may be so called) about twice as big as a pancake, and something thicker and tougher. It is unleavened bread of a sourish taste, far from being disagreeable, and very easily digested, made of a grain called teff. It is of different colours, from black to the colour of the whitest wheat bread. Three or four of these cakes are generally put uppermost for the food of the person opposite to whose feet they are placed. Beneath these are four or five of ordinary bread and of a blackish kind. These serve the master to wipe his fingers upon, and afterwards the servant as bread for his dinner. Two or three servants then come, each with a square piece of beef in their bare hands, laying it upon the cakes of teff placed like dishes down the table, without cloth or anything else beneath them. By this time all the guests have knives in their hands, and their men have large crooked ones, which they put to all sorts of uses during the time of war. The women have small clasped knives, such as the worst of the kind made at Birmingham, sold at a penny each. The company are so ranged that one man sits between two women; the man with his long knife cuts a thin piece, which would be thought a good beefsteak in England, while you see the motion of the fibres yet perfectly distinct and alive in the flesh. No man in Abyssinia, of any fashion whatever, feeds himself or touches his own meat. The women take the steak and cut it lengthways about the thickness of a little finger, then crossways into square pieces something smaller than dice. This they lay upon a piece of the teff bread strongly powdered with black pepper, or Cayenne pepper, and mineral salt; they then wrap it up in teff bread like a cartridge.

"In the mean time, the man having put up his knife, with each hand resting on his neighbour's knee, his body stooping, his head low and forward, and mouth open very like an idiot, he turns to the one whose cartridge is first

ready, who stuffs the whole of it into his mouth, which is so full that he is in constant danger of being choked. This is a mark of grandeur. The greater the man would seem to be the larger piece he takes in his mouth; and the more noise he makes in chewing it the more polite he is thought to be. They have indeed a proverb that says, 'Beggars and thieves only eat small pieces or without making a noise.' Having despatched this morsel, which he does very expeditiously, his next female neighbour holds another cartridge which goes the same way, and so on till he has finished. He never drinks till he has finished eating; and, before he begins, in gratitude to the fair one that fed him, he makes up two small rolls of the same kind and form; each of his neighbours open their mouths at the same time, while with each hand he puts their portion into their mouths. He then falls to drinking out of a large handsome horn; the ladies eat till they are satisfied, and then all drink together. A great deal of mirth and jokes goes round, very seldom with any mixture of acrimony or ill-humour.

"During all this time the unfortunate victim at the door is bleeding indeed, but bleeding little. As long as they can cut off the flesh from his bones they do not meddle with the thighs or the parts where the great arteries are. At last they fall upon the thighs likewise, and soon afterwards the animal, bleeding to death, becomes so tough that the cannibals, who have the rest of it to eat, find it very hard work to separate the flesh from the bones with their teeth, like dogs.

"In the mean time those within are very much elevated; love lights all its fires, and everything is permitted with absolute freedom. There is no coyness, no delays, no need of appointments or retirement to gratify their wishes; there are no rooms but one, in which they sacrifice both to Bacchus and to Venus."

Bruce's travels are as well worth reading to-day as they were in 1790. A somewhat conveniently abridged edition was published in the same year (1790) as the five volumes appeared, but all who are taking up the subject of Abyssinia seriously are advised to work their way through the original five volumes. A sumptuously illustrated edition in eight volumes appeared after the author's death, in 1805. Bruce was received with some honour at court on his return, but was awarded no special distinction. Dr. Johnson, amongst others, denounced the brilliant young Scotch traveller as an unscrupulous romancer; Horace Walpole pronounced his volumes "dull and dear." Just as the African Association sprang into being and directed its efforts toward the rehabilitating of Bruce's character as a truthful writer, Bruce himself died in the most disappointing manner by falling down the stairs at his house and breaking his neck. His death was occasioned by over-politeness. He was rushing from his study to the hall in order to be able to escort a lady to her carriage.

Bruce was really a great traveller, an accurate observer, a splendid sportsman,[1] and a far-sighted "Imperialist." In 1775 he conceived the need of the English rulers of India controlling the Egyptian route, and actually obtained from the Turkish authorities in Egypt a concession for the English on the shores of the Red Sea.

[1] It is curious to read of his using a "rifle" in Abyssinia and thereby astonishing the princes.

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PORTRAIT OF JAMES BRUCE.

As has been already mentioned, Bruce had been accorded a magnificent reception by the scientific men of France. Buffon especially was incited by Bruce's stories to urge the French government in the direction of Nile exploration. Buffon had become interested in a young man native to Alsace, Sonnini de Manoncourt. Sonnini was born at Lunéville in 1751. He was the son of a Roman court official who had followed King Stanislas of Poland to his residence in Lorraine. Sonnini, the younger, who had travelled in French South America, had conceived the idea of a journey through Africa from north to south, from the Gulf of Sidra in Tripoli to the Cape of Good Hope. This scheme, however, when recommended to the French Foreign Office official who then had charge of the French establishments in the Levant, was deemed impracticable, and Sonnini was invited to restrict his attempts to a careful exploration of the Nile from Rosetta southward to the limits of Egyptian rule. His travels did not extend much beyond Assuan, but he brought back a great deal of detailed information about Upper Egypt, its fauna, flora, and the habits and customs of its population along the banks of the Nile. Sonnini's work will always remain a useful book of reference. For the period at which he wrote he took a great interest in the question of the geographical distribution of mammals. He attempted to collect information regarding the gradual disappearance from civilised Egypt of the great fauna. In this he followed the inspiration of Buffon. Ac-

cording to Sonnini and Buffon, hippopotamuses only became extinct in the Lower Nile near the Mediterranean as late as 1658. Two hippopotamuses were killed at Damietta in 1600 by an Italian surgeon named Federigo Zeringhi.

Nearly a hundred years before Cecil John Rhodes was brooding in his studies at Oriel College over the advance of British South Africa toward the equatorial regions, that same college at Oxford was nurturing other dreams of African exploration in the mind of William George Browne, a Londoner by birth (1768), who at seventeen became an undergraduate at Oriel. Browne was fired by reading Bruce's "Travels," and a year after those five volumes were published, when he was only twenty-three (1791), he started for Alexandria, which he reached after a month's journey from England (not a bad record for those days). Egypt proper prior to the descent of the French under Napoleon must have been fairly free from Muhammadan fanaticism and distrust of Europeans in the second half of the eighteenth century. Not a few travellers — French, Italian, and English — were able to circulate in the dominions governed by the Mameluks. Browne first of all visited the oasis of Siwah. He spent a year and a half on this journey, and examined the whole of Egypt proper and the peninsula of Sinai. Being at Assiut in March or April, 1793, he heard of the caravan which, until quite recently, left that place annu-

ally to travel across the desert to Darfur. Following the same route, and in a measure attaching himself to the caravan, he reached Darfur after a journey of considerable difficulty. Here he found himself amongst such fanatical Muhammadans that he was practically a prisoner, and it was only by invoking the aid and sympathy of the Turkish authorities in Egypt that he induced the Sultan of Darfur to allow him to return. Even then he was not allowed to carry out his project of striking the White Nile from the direction of Darfur, and thence crossing into Abyssinia. He was obliged to return along the caravan route to Assiut. He then continued his travels in the direction of Syria, and arrived in London in 1798. After publishing an account of his travels, he again left England for the Levant. In 1812 he started for Persia with the intention of exploring Central Asia. Between Tabriz and Teheran his caravan was attacked by robbers, and he was killed.

The part of his book which deals with Egypt and Darfur is excellent, much in advance of his age and very "modern" in its accuracy, definiteness, and absence of gushing enthusiasm. Equally remarkable for the age is the soundness of his orthography in spelling local names and in transcribing dialects. Browne's work still remains an authority on Darfur.

The eighteenth century closed with some advance in the direction of the Nile Quest. At any rate interest in the Nile problem had revived in Europe. The publication at the beginning of the century, in an

English translation from the Portuguese, of the travels undertaken by the Jesuit Fathers in Abyssinia, — the fact that an English statesman (Lord Halifax) under the second George made it possible for Bruce to start on his great journeys, and, lastly, the creation of the African Association, testified to the commencement of this interest in England. In France the question had been receiving attention from the end of the seventeenth century, but mainly for political reasons. It had occurred to Louis XIV. and to the ministers of his successor that Egypt, so loosely held by the Turk, would be an admirable base from which to effect the conquest of India. These ideas were not lost on Napoleon Bonaparte, and the eighteenth century closes with the invasion of Egypt by the French, an event as wonderful to the full and as far-reaching in its results as the conquest of the same country by the Greeks under Alexander the Great 2131 years previously. Alexander's conquest of Egypt from the Persians, or rather from the several native Egyptian dynasties who were ruling under Persian suzerainty, put an end to the régime of Ancient Egypt and Hellenised the countries of the Lower Nile and of Abyssinia. The invasion of Napoleon Bonaparte broke the power of the Moslem, and prepared the way for the administration of Egypt by Europeans and Christians. Rome profited by the exploits of the Macedonians; England has succeeded to the task which was begun with such amazing brilliance by Frenchmen.

BERDOA
DESERT of LIBYA
LEVATA
KOUAR
KUKU
KANEM
BORNOU
BAGHERMI
DESERT of SETH
TAGUA
DESERT of BAHIOUDA
BARABRA or DONGOLA
BERBER
NUBIA
DESERT of BERBER
DESERT of BATN EL HAJAR
DESERT of BAHIOUDA
DESERT of BARBAR
DESERT of DARFOOR
DESERT of KORORAFA
DESERT of ATBARA
DESERT of SAHARA
DESERT of ARABIA
DESERT of THEBAID
DESERT of LIBYA
DESERT of BARCA
DESERT of BILMAH
DESERT of BORNOU
DESERT of SENNAAR
DESERT of KORDOFAN

CHAPTER IX

MUHAMMAD ALI OPENS UP THE WHITE NILE

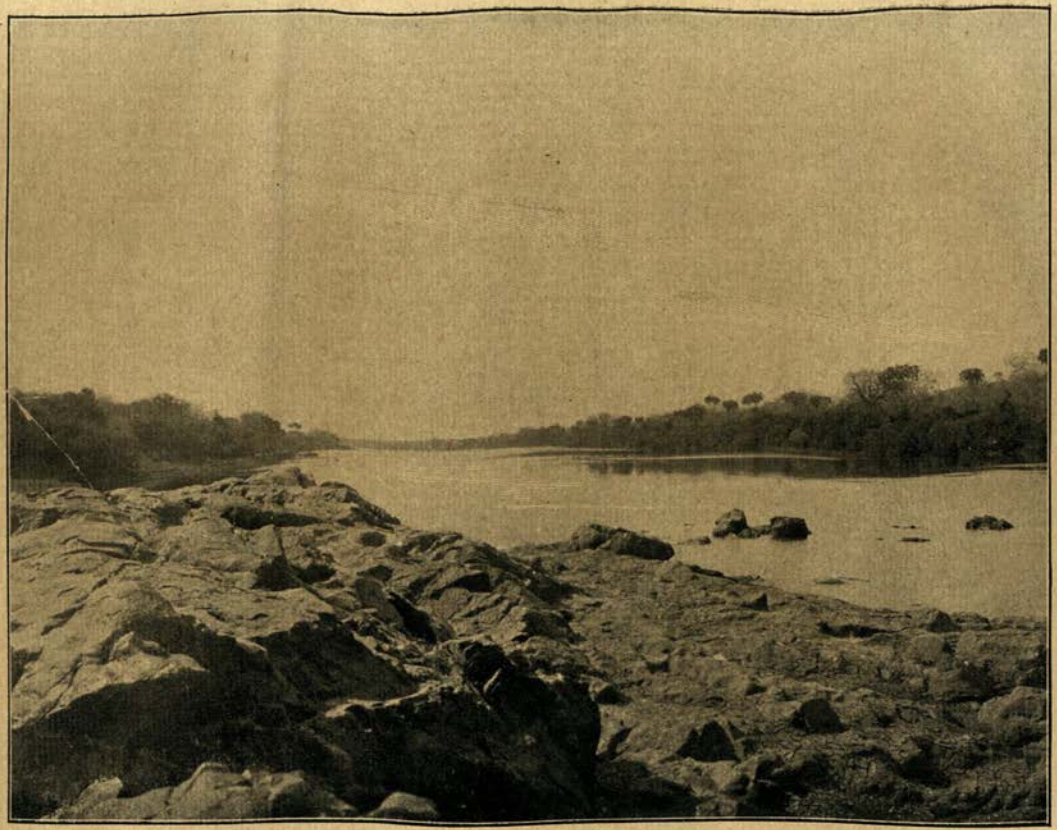
IN 1807 Jacotin published at Paris an "Atlas de l'Égypte," which gave a fairly accurate survey of the Nile from the Delta to Assuan. This Atlas gave the results of the geographical work done by the French army of occupation. The splendid volumes which illustrated the other scientific results of Napoleon's venture were not published until the Bourbons had been restored to the throne of France. They aroused, however, great interest in the valley of the Nile, especially by the account they gave of its remarkable fauna. This interest was felt as much in England as in France; one of the first English travellers to explore the Nile (as far as Korosko) after the close of the Napoleonic war was the Hon. Charles Leonard Irby, who, with James Mangles (both of them naval commanders), travelled in Egypt in 1817–1818. When Egypt had settled down under the iron rule of Muhammad Ali Pasha, the French, who had begun to conceive the idea of supporting the power of that adventurer, and so once more gaining control over Egypt, began to resume their interest in Nile exploration. In 1819 a Frenchman named Frédéric Caillaud (of Nantes), who had been in Egypt under

the Napoleonic régime, returned under the patronage of Louis XVIII. and explored the main Nile as far south as the present site of Khartum, and gave the first accurate account of one of the several Meroes, namely, that ancient Ethiopian capital which is situated on the right bank of the Nile about one hundred miles south of the confluence of the Atbara. Caillaud and his companion Letorzec also accompanied a military expedition under Ibrahim Pasha. This expedition (which resulted in the founding of Khartum [1] in 1823) explored the Blue Nile for a considerable distance, — as far as Fazokl. French interest in Nile exploration was to continue later on more merged in the service of the Egyptian government. But British efforts in this direction had not been lacking in the early part of the nineteenth century. A young Swiss, John Ludwig Burckhardt, born in French Switzerland in 1784,[2] and a student of two German universities, came to England in 1806 with a letter of introduction to Sir Joseph Banks and the African Association.[3] This Association accepted his proposals for African

[1] The name of this notable African city is said to mean, in the local Arabic, "elephant's trunk," as the long spit of sand on which it was erected was supposed to resemble that feature. Other etymologies are quoted. Apparently the name was that of a small fishing village of grass huts which was selected by Ibrahim Pasha as a camp commanding both the White and Blue Niles and easily defended. Khartum, from its situation, rapidly became the metropolis of the Sudan. It was taken and destroyed by the Mahdi in 1885. Its site was reoccupied by Lord Kitchener's victorious force in 1898. Khartum has since been rebuilt, and will probably become one of the greatest cities of Africa.

[2] The son of a Swiss soldier in the Swiss corps subsidised by England in the Napoleonic wars.

[3] Afterwards absorbed by the Royal Geographical Society.



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BLUE NILE, TWENTY MILES EAST OF FAZOKL.

exploration. Burckhardt then set himself to study first in London and then at Cambridge, and during his residence in England attempted in the thoroughgoing Teutonic manner to inure himself to hardships by exposing himself to cold, fatigue, and hunger in many fashions. After his three years' residence in England he left for Malta, and reached Aleppo in October, 1809. Here he thoroughly mastered Arabic, the contents of the Koran, and much else that appertained to the practice of the Muhammadan religion and the administration of its law. In 1812 he started from Cairo with the intention of journeying across the desert to Fezzan, but, changing his plans, followed the Nile to Korosko, and thence travelled across the Nubian Desert to Berber and Shendi. From this last place he travelled to Suakin and to Jiddah. From Jiddah he made (the first of all European Christians) the pilgrimage to Mecca. Returning again to Cairo and preparing once more to start for Fezzan and the Niger, he was seized with an illness of which he died at Cairo. His journeys had resulted in the collection of eight hundred volumes of Oriental manuscripts, all of which he sent to Cambridge University. All the works of this brilliant traveller and profound Orientalist were published after his death.

In 1827 Adolphe Linant (Bey), a Belgian, who subsequently called himself Linant de Bellefonds, took service under the British African Association,[1] as-

[1] As this journey was financed by the African Association, it may be regarded as a British contribution to Nile exploration.

cended the White Nile (first of all Europeans, so far as we know, since Dalion the Greek), and reached a point (Al Ais) nearly one hundred and fifty miles south of Khartum.

But the next great blow at the Nile mystery was to be struck by the orders of the Pasha of Egypt. Muhammad[1] Ali was the native of a little Vlach (Wallach) town or settlement in Albania called Cavalla. In appearance he might at any time have been mistaken for a Frenchman of eastern France, a German, or an Englishman. He was born in 1768, and was adopted as a son by the Governor of the town, who, as a reward for his bravery as a soldier, gave him his daughter in marriage. His three eldest sons, Ibrahim, Tusun, and Ismail, were born in Albania. In 1801 he was sent to Egypt with the rank of major, rising soon to be colonel. When the French had evacuated Egypt, the Turks endeavoured to gain direct control over the country by attacking the power of the Mameluks or Circassian soldiery who had really ruled in the name of the Turks. In 1803 the British evacuated Egypt, and gradually the situation resolved itself into a struggle for power between the Albanian soldiery under Muhammad Ali and the Turks. The Albanians allied themselves at first with the Mameluk or Circassian party, the former rulers. At length, after a civil war lasting for two years, the Turkish government appointed Muhammad Ali to be Governor

[1] The name Muhammad is affectedly pronounced by the Turks Mehemet, but is of course written by them Muhammad.

of Egypt. In 1807 the British attempted to reoccupy Egypt, and took possession of Alexandria. This action temporarily united Muhammad Ali with his enemies, the Circassian Beys. The British expedition ended in disaster and withdrawal. At last, by means of treachery and an appalling massacre, Muhammad Ali got rid of the Circassian party and became the undisputed master of Egypt. He then assisted the Porte to put down the Wahabi revolt in Arabia. These expeditions resulting in many military successes, the ambition of Muhammad Ali grew, and he desired to create for himself a perfectly disciplined army. To this end he decided to employ his disaffected troops who were opposed to innovations in discipline in conquering the Sudan. He commenced with Nubia, Dongola, and Sennar. From the Sudan were brought back numbers of the sturdy Negroes, who were drilled into some kind of disciplined force by French officers at Assuan. Then came the war with Turkey, which nearly resulted in Muhammad Ali capturing Constantinople. But this led to the intervention of Europe, and the ambition of Muhammad Ali was confined within the limits of Egypt and the Sudan.

In 1839 the ruler of Egypt despatched the first important conquering and exploring expedition up the White Nile. It was accompanied by a French officer, Thibaut,[1] who had become a Muhammadan. This expedition reached as far south as north latitude 6° 30′. In 1841 a second expedition, which was accompanied

[1] Afterwards for nearly forty years French consular agent at Khartum.

by two Frenchmen (D'Arnaud and Sabatier), and by a German, Ferdinand Werne, reached the vicinity of Gondokoro in north latitude 4° 42′. Werne wrote an interesting and scientific account of this second expedition. His map of the White Nile from Khartum to Gondokoro is a remarkably good piece of work. A third expedition under the same Turkish commander (Selim Bimbashi), and accompanied by D'Arnaud, Sabatier, and Thibaut also reached Gondokoro. All these expeditions were made in sailing boats, and those that reached farthest were stopped by the same obstacles, — the rapids at Gondokoro.

As far back as 1820 steamers had been introduced onto the Nile between the Delta and the First Cataract, mainly through French enterprise. Some of these steamers even plied between Cairo and Korosko. In 1846 the first steamboat was put together on the White Nile above Khartum. In 1845 a Frenchman (Brun-Rollet) ascended the White Nile in a sailing vessel and founded a trading post in the Kich country.

Between 1827 and 1830 a German, Prokesch von Osten, had made a correct survey of the Nile between Assuan and Wadi Halfa, and in the later forties this survey was continued under Baron von Müller as far south as Ambukol in Dongola. During the forties great interest concerning the Egyptian Sudan had arisen in Austria. Austria was not suspected of political views in the direction of Egypt, and therefore no doubt Muhammad Ali and his successors were more disposed to encourage Austrian missionaries than those

FERDINAND WERNE. [*Face page* 96.

of France or England. The Pope created a Bishop of Khartum in 1849, and Austrian missionaries [1] had founded stations on the White Nile as far distant as Gondokoro by 1850, in which year Dr. Ignatz Knoblecher, an Austrian missionary, extended his explorations a few miles beyond Gondokoro to Mount Logwek. A little, very little, information was collected as to the course of the Nile above that seventy miles of rapids which cuts off the navigation of the river between Nimule on the south and Gondokoro on the north. A vague story was collected from the Bari to the effect that this great river came from a considerable distance southwards and issued from a lake. This, no doubt, was a correct hint as to the existence of Lake Albert Nyanza. But at this point the information stopped.

In other directions progress had been made in Nile exploration. Besides the Austrian Roman Catholic Mission,[2] which established stations chiefly in the Kich and Bari countries on the White or Mountain Niles, the rapid opening up of the waterways into the heart of Africa soon attracted pioneers of exploration, traders, and adventurers of several European

[1] Mainly supported by the Archduchess Sophia.

[2] The names of the principal members of this Austrian Roman Catholic Mission, which finally abandoned its labors about 1862, owing to the terribly unhealthy climate of the Upper Nile, were Knoblecher, Beltrame, Morlang, Ueberbacher, Ryllo, and Dorvak. Of their numbers (seventeen in all) fifteen died of fever or dysentery, and only two returned to Europe. Beltrame wrote important works in Italian on the Dinka language. Knoblecher, Ueberbacher, and Morlang collected materials for the illustration of the Bari language, which were put together by Mitterrützner.

nationalities. Far ahead of the European and the Turk, however, went the Nubian (the native of Dongola) and the Arab of Upper Egypt. These men were the real pioneers of European exploration, since they served as guides and transport agents to the Europeans who followed along the routes they opened up. These Nubians started a far-reaching trade in slaves, and were guilty of many barbarities. They made such a deep impression on the minds of the Negroes in the Nile basin from the Bahr-al-Ghazal to Uganda that to this day the natives of the Egyptian Sudan are called "Nubi" or Nubian, even though they be black Negroes from the equatorial regions. The Nubian slave-traders laid the foundation of the Sudanese regiments which were to serve Egypt and England in subduing and controlling Eastern Equatorial Africa. As the Mountain Nile (thus the main stream is called, south of its junction with the Bahr-al-Ghazal) led through excessively swampy, despairing countries, and did not reach the habitable land until it entered the Bari country near the rapids of Gondokoro, most of the exploring enterprise for fifteen years, between 1840 and 1860, preferred to follow the more easily navigable streams which unite to form the Bahr-al-Ghazal, the great western tributaries of the Nile.

Among the pioneers in Nile exploration at this stage was the forerunner of the intelligent tourist, Mr. Andrew Melly, a member of a Liverpool family, though born at Geneva. Mr. Melly actually started for Khar-

tum and the White Nile accompanied by his wife, two sons, and a daughter. His main object seems to have been that of natural history collecting. He took insufficient measures for living with health in a tropical climate; fever attacked him on his return journey, and he died near Shendi on his way back from Khartum. His son George wrote a book in two volumes describing Khartum and the Nile between that place and the First Cataract. This book was mainly based on the father's journal. The expedition seems to have been well equipped. The provisions were furnished by Fortnum and Mason, who even in that early period (1849–1850) supplied tinned salmon.

The first of the long roll of European martyrs to African fever in the opening up of the Sudan was Herr Baumgarten, a Swiss mining engineer, educated in Austria, who died at Khartum in 1839 after returning with Muhammad Ali, who at that period had penetrated as far south as Al Ais, in the Shiluk country. Brun-Rollet, a Frenchman, was perhaps the first European trader to establish himself on the White Nile. He ceased trading, however, in 1850, after having established posts as far south as the Bari country.

In 1851 the mission station of Gondokoro was founded by Knoblecher and Vinci of the Austrian Mission. A short distance beyond Gondokoro, on the west bank of the Nile, near the modern Belgian station of Rejaf, is a little stony hill called by the Bari Logwek. This hill was the extreme point reached by the third expedition despatched from Khartum at the

orders of Muhammad Ali in 1841, and afterwards by the Austrian missionary, Knoblecher, in 1848. Here the White Nile, approached from the north, became unnavigable owing to the rapids which obstruct the course of the stream during its thousand-feet fall from Dufile to Gondokoro. For a long time Logwek (remarkable as being the first high and stony land which is met with in ascending the White Nile after the many hundred miles' journey through the marshes) formed the limit of European discovery coming from the north.

About 1843 or 1844 D'Arnaud, one of the Frenchmen who accompanied the exploring expeditions of the Egyptian government, published a map of the White Nile which carried the course of the river as far south as 4° 42′ north latitude. Towards the end of the forties further explorations were made from time to time west of the White Nile by a Frenchman, De Malzac, who at the time of his death at Khartum, in 1859 (?), was compiling a work on the Fauna of the White Nile.

In 1845 a Welsh[1] mining engineer named John Petherick entered the service of Muhammad Ali, the Pasha of Egypt. He was employed for some years in examining the countries of Upper Egypt, the coast of the Red Sea, and Kordofan for coal and other minerals, apparently with little or no success. In his interesting work, "Egypt, the Sudan, and Central Africa," he has left us, amongst other things, a remarkably interesting account of Kordofan at the end

[1] Glamorgan.

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THE WHALE-HEADED STORK (*Balæniceps rex*).

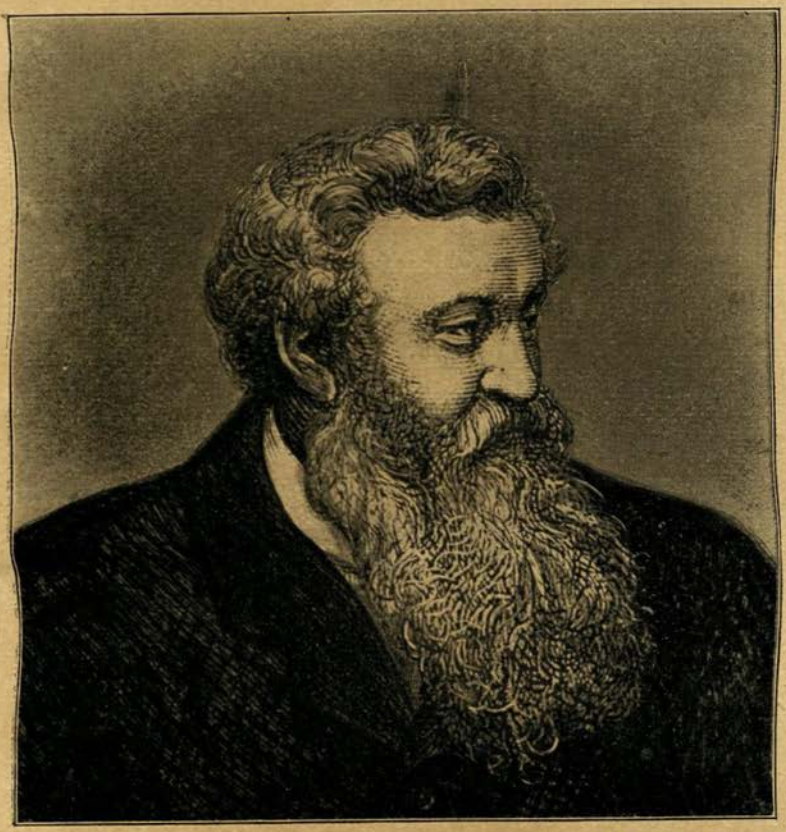
of the forties of the last century, some twenty-five years after its conquest by the Turks from the mild rule of Darfur.[1] In 1848 Muhammad Ali died, and Petherick quitted the service of the Egyptian government. Trade in the Sudan had now ceased to be a government monopoly, partly owing to the efforts of the English Consul-General at that time. Petherick therefore resided at El Obeid in Kordofan for five years as a trader in gums and other produce. In 1853 he resolved to go in for the ivory trade on the White Nile and the Bahr-al-Ghazal. This great western feeder of the Nile was beginning to be opened up by the Nubian traders already referred to. For six years Petherick traded for ivory and explored some of the great rivers which flowed into the Bahr-al-Ghazal, — chiefly the Jur and the Yalo or Rōl. During the course of his explorations he was the first European (unless De Malzac preceded him) to reach the Nyam-nyam country (Mundo). He made some remarkable discoveries in natural history,—the splendid *Cobus maria* or Mrs. Gray's Waterbuck, and the *Balæniceps rex* or Whale-headed Stork. Petherick's skins of the *Balæniceps* which he gave to the British Museum in 1859 were the only specimens in that col-

[1] It may be mentioned here that throughout the Sudan, from the Albert Nyanza to Khartum, the Egyptians, as distinct from their Sudanese soldiers, are always spoken of as Turki or Turūk. Kordofan, once the home of the Nubians and of Negro races, was overrun by Arabs for several centuries, and more than a hundred years ago formed part of the half-Ethiopian kingdom of Sennar. It was then subdued by the mailed horsemen of Darfur, and held by them until conquered by the Egyptian army under Ibrahim Pasha in 1820.

lection for more than forty years, until they were reinforced by the first Whale-headed Storks obtained on the Victoria Nyanza, which were sent home by the author of this book. Petherick also captured and brought to Europe a young hippopotamus. [It is interesting to observe in his first book, "Egypt, the Sudan," etc., published in 1859, that the classification of his bird collections is made by Dr. P. L. Sclater, then and until recently Secretary to the Zoölogical Society.] Petherick's return to Europe with a recital of such wonders obtained for him considerable attention. He married in the early part of 1861, and was invited to take charge of a relief expedition to be sent up the Nile to meet Captain Speke and Grant, who were to attempt descending the Nile from its supposed source at the north end of the Victoria Nyanza.

During the latter period of Petherick's experiences on the Nile (in 1858), he had been appointed consular agent for the British government at Khartum. In 1861, before starting to return to the Sudan, he was given the rank of consul. He left England in 1861 with his wife and with an English youth named Foxcroft, who accompanied him as bird-stuffer and natural history collector.[1] In 1861 he despatched to Gondokoro, to await the arrival of Speke and Grant, an expedition under the Turks and Arabs, with boats

[1] Petherick in his last book writes in eulogistic terms of the behaviour of this mere boy (so far as age went) throughout all the trying experiences that the Pethericks underwent in their journeys up and down the White Nile and the rivers of the Bahr-al-Ghazal. It would be interesting to know what became of Foxcroft after so promising a début in African travel.



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full of supplies. Petherick and his wife, accompanied by Dr. Murie (who had joined them from England) and by Foxcroft, then spent some years exploring the western affluents of the Nile which unite in the Bahr-al-Ghazal. In this way they revisited the Nyam-nyam country. Petherick seems to have been partly trading and partly collecting information on the slave-trade and prosecuting Maltese slave-traders; and these investigations seem to have rather taken his attention from one of the objects of his mission, which was to insure a proper relief to Speke and Grant. How far he was to blame in the matter it is difficult to determine. People in England seem to have doubted the effectiveness of his methods to insure this relief, and amongst others who thought it necessary to forestall Petherick was Mr. (afterwards Sir Samuel) Baker, who, in 1862–1863, got ahead of the Pethericks (then deciding to go in person to the relief of the explorers), and actually arrived at Gondokoro in time to afford much needed assistance to the exhausted travellers. Speke appears to have considered that Petherick had not acted up to the assurance he had given to the Royal Geographical Society, who intrusted him with the expenditure of the relief fund. This criticism, together with the bitter animosity aroused by Petherick's prosecution of slave-traders and reports on the misgovernment of Egyptian officials, cost him the confidence of the Foreign Office, and in 1864 his consulate was abolished. It was actually alleged by some of his enemies that he himself carried on a trade in slaves, — an alle-

gation for which there does not seem to have been the slightest foundation. In 1865 the Pethericks returned to England. Petherick's second book ("Travels in Central Africa") was not published until 1869. It is impossible, after careful observation and a more than thirty years' interval, to avoid the impression that Petherick was treated by his country with some ingratitude. He did a great deal to increase our knowledge of the Nile basin and its remarkable fauna. His collections of beasts, birds, and fishes enriched the British Museum. He took a number of astronomical observations in order to fix important points on the White Nile and in the region of the Bahr-al-Ghazal. He died in 1882.

In 1840 a French Egyptian official, Clot Bey, engaged as private secretary a young French doctor of medicine, Alfred Peney. For something like fifteen years Dr. Peney carried on official medical work in Egypt. He was gradually led, however, towards Nile exploration through his official visits to Khartum, the Blue Nile, and Kordofan. He was intensely interested in ethnology and in the study of the Nile Negroes. French influence in Egypt during the fifties was in the ascendency. De Lesseps and the various officials who served France as agents and consuls-general at Cairo had known how to secure the concession for the Suez Canal. They became jealous that France should also secure for her citizens the glory of having discovered and traced the course and the sources of the Upper Nile. This blue ribbon of

geographical discovery was already being sought for by Germans and Englishmen. Dr. Peney especially was continually urging his superiors in Cairo to organise, or induce the Viceroy Said to organise, a Nile research expedition under French auspices. But the choice by the French agent of a leader for this enterprise fell most unfortunately. Hanging about Cairo was a Frenchman of a type not infrequently met with at Levantine courts during the first eight decades of the nineteenth century. This was the Count d'Escayrac de Lauture. Men of this description were either Royalist refugees, or the sons of such, or they were Napoleonic noblemen who had got into financial or social difficulties. D'Escayrac, however, appears to have been an amiable dilettante, who had some pretensions to be an Egyptologist. But he was utterly unsuited to lead an expedition into Central Africa. He was elderly, vain, pompous, and extravagant. The viceroy, wishing that the expedition should not be too exclusively French, ordered d'Escayrac to recruit part of his personnel in England, Germany, and Switzerland. This was done, but the expedition never left Cairo for the Upper Nile. D'Escayrac made himself perfectly ridiculous by strutting about in a fantastic uniform, trailing a long sabre. His expensive scientific instruments were badly packed, and arrived at Cairo injured. The whole expedition was dissolved, owing to the bitter dislike which d'Escayrac inspired among his staff. The only incident in the whole of Count d'Escayrac's preparations which shows him to

have been in any way enterprising or intelligent, was his desire to secure good photographic views of the Upper Nile and its natives. He had provided the expedition with the best apparatus which could be obtained at that period (1856). It is curious to note that in the criticisms of his plans published at the time, the critics animadvert more bitterly on the extravagance of spending one hundred pounds on photography than on any other supposed mistake in d'Escayrac's preparations.

Dr. Albert Peney was to have been medical officer to the expedition. When it was dissolved, he started off for the White Nile on his own account, attaching himself, whenever opportunity offered, to such caravans as those of Andrea de Bono, the Maltese. Peney made a remarkably good map (most interesting to place on record as showing subsequent changes in the course of the Nile) between Bor and a place which he calls Nieki, which was situated on the Mountain Nile very near to the present site of Fort Berkeley. Peney, hearing rumours of great rivers to the west, crossed the range of hills which flanks the western bank of the Mountain Nile in the Bari country, and thus reached the river Yie or Yei. This river, as we know now, flows northwest nearly parallel to the main Mountain Nile, and joins that river some distance before its junction with the Bahr-al-Ghazal. But Peney exaggerated the importance of this stream, and confused it with the accounts he heard of the many great rivers that united to form the Bahr-al-Ghazal. On

his map he actually makes the Yie an effluent of the White Nile, issuing from the main stream not far from the present post of Nimule, and flowing north-westwards until it enters the Bahr-al-Ghazal. He thus transformed the whole region of the Bahr-al-Ghazal into an enormous island encircled by two branches of the Nile. Peney further visited the country to the east of Gondokoro, and was probably the first explorer to mention the name Latuka. This country he rightly designates Lotuka. Latuka is the incorrect version given to the world by Emin Pasha. The *Lo* in this word is really the masculine article met with in so many of the Masai group of languages to which the tongue of Latuka belongs. The root *tuka* (which should be properly spelled and pronounced *tukă*) is evidently a racial name widespread among that Negroid group resulting from an ancient intermixture of the Gala with the Negro, from which groups the Latuka, Turkana, Masai, Nandi, and Elgumi descend.[1]

Dr. Peney died of blackwater fever in July, 1861, at a point on the Nile near Fort Berkeley. Andrea de Bono was with him at his death, and records the characteristics of the disease from which Dr. Peney died. Since the idea has been started that blackwater fever is quite a new disease in these regions, it is interesting to know that from all accounts several of the earliest European pioneers from 1848 to 1861 appear

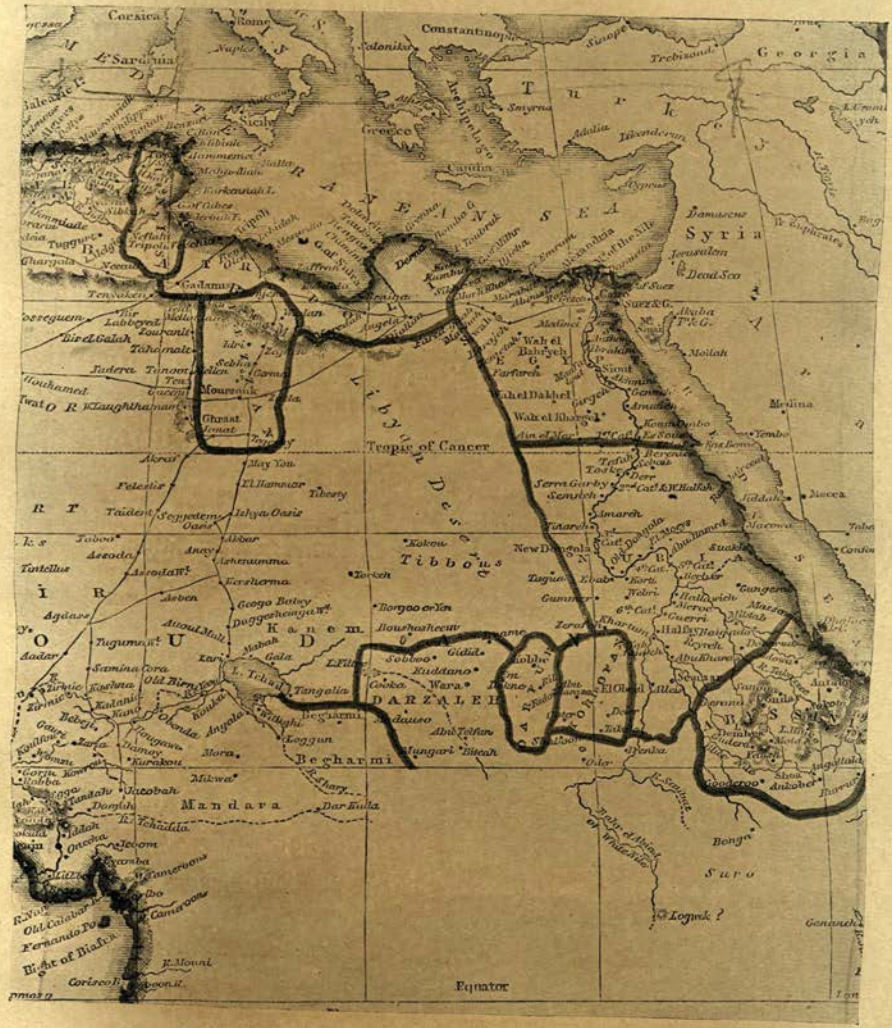
[1] Many of these tribes are known to us at the present day by foolish nicknames. For instance, the Kamasia people, who dwell in the western part of the Baringo district, really call themselves El Tūkan. Turkana seems often pronounced Tukana.

to have died of this malady whilst exploring the Upper Nile.

About the time that Peney was exploring the Mountain Nile, another Frenchman, Lejean, was surveying with some correctness the Bahr-al-Ghazal estuary, of which he published a map in 1862.

Not only Englishmen, Frenchmen, and Germans, but Italians and Maltese had by this time appeared as explorers, traders, and naturalists on the White Nile and its tributaries.[1] Some of these came as members of the Austrian Roman Catholic Mission. Perhaps out of jealousy of Austria, or with the idea of spreading North Italian trade and influence, the then Kingdom of Sardinia appointed Signor Vaudet (apparently a Piedmontese trader) Sardinian pro-consul at Khartum. Vaudet invited out his two nephews, the brothers Poncet (one of whom published a book on the White Nile in 1863). Vaudet was killed by the Bari tribe near Gondokoro about 1859. This Bari people, now so much diminished by famine and by the raids of the Sudanese slave-traders and Dervishes, was a far more serious bar to the prosecution of exploration up the Mountain Nile in the direction of the great lakes than the rapids above Gondokoro. The Bari, no doubt, were wronged by the Europeans and Nubians, but they were nevertheless responsible for the

[1] Amabile, tried and sentenced to imprisonment by Petherick for slave-trading, and Andrea de Bono, who, though ostensibly an ivory-trader, was very unscrupulous in his methods. De Bono, however, was the first European to explore the countries to the east of the Mountain Nile, i. e., between the main Nile and the basin of Lake Rudolf.



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MAP PUBLISHED IN PENNY MAGAZINE OF 1852.
Which gives results of Nile exploration up to that date.

death of not a few European explorers. But for their determined hostility, there is little doubt that the earlier French, Italian, German, and English pioneers would have found their way to Lake Albert long before its discovery by Baker. Indeed Giovanni Miani, a Venetian, got as far south as Apuddo,[1] if not farther, in the prosecution of his search for the rumoured lake. Miani subsequently explored the regions of the Bahr-al-Ghazal and the headwaters of the streams rising in the Nyam-nyam country. He it was who, first of all explorers, brought back those rumours of a watershed beyond the Nile system, with a great river (the Welle) flowing to the west.

There seems to have been little, if any, international jealousy in this wonderful field of exploration between 1840 and 1860. Khartum was the rendezvous, the principal depot of the Europeans, and throughout all these years was under a Turkish governor. Life in Khartum between 1850 and 1860 was by no means devoid of attractions. Several of the Europeans who made it their headquarters brought out their wives with them. Others were married to handsome Abyssinian women. The houses of Egyptian style were comfortable and cool. The place swarmed with strange new beasts and birds; indeed, nearly every house included a menagerie in one of its yards. A great slave-market brought before the eyes of astonished and interested Europeans nearly all the principal Negro types from as far west as Wadai

[1] Near the confluence of the Asua River.

and Darfur, from the confines of Abyssinia on the east, from the lands of the naked Nile Negroes on the south; stalwart, lighter-coloured, bearded Nyam-nyam cannibals from the southwest, coal-black Madi, here and there an Akka Pygmy, thin-shanked Dinka and Shiluk, sturdy Bongo, and handsome Gala. "There ain't no Ten Commandments" might with some justice have been said of society at Khartum. At any rate it was much untrammelled as regards the more wearisome conventions of civilised life. Nobody inquired if M. Dubois was legally married to Mme. Dubois, and perhaps the treatment of the doubtful Mme. Dubois as a respectable married woman by blue-eyed strait-souled Mrs. Jones ended by Mme. Dubois becoming legally united to her spouse later on at Cairo, and finishing the rest of her life as a happy and perfectly respectable person. The air was full of wonderment. Improvements made year by year in firearms resulted in marvellous big-game shooting. Though there were bad fevers to be got in the Bahr-al-Ghazal, the climate of Khartum itself was not necessarily unhealthy. The post seems to have arrived across the desert on camels at least once a month. The tyranny, social and administrative, of the British military officer and his dame was not to come for many years; the "smart" hotel was absent; provisions were good, plentiful, and cheap. Those are times that the African explorer of to-day looks back upon with something like a sigh.

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THE RIVER SOBAT.

CHAPTER X

MISSIONARIES AND SNOW-MOUNTAINS

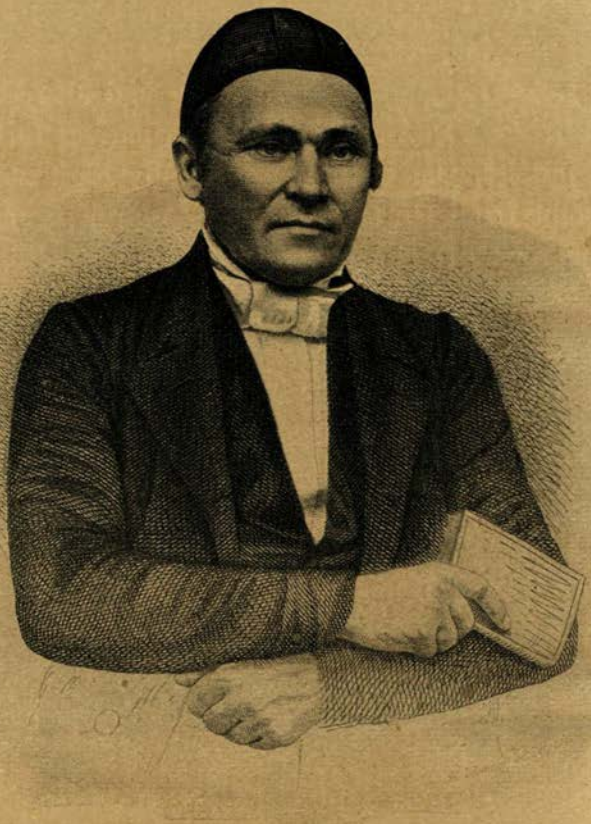
DOWN to 1858 all that Europe knew of the Nile basin was this: The course of the Blue Nile had been mapped to some extent from its source in Lake Tsana; and the travels of Rüppell (1830–1831) (the great German naturalist), of another German, Joseph Russegger, of the D'Abbadies (the great French surveyors), of Sir William Cornwallis Harris (who was sent on a mission to Shoa), Théophile Le Febvre, Mansfield Parkyns (1840–1845), H. Dufton, and C. T. Beke had cleared up a good many blank spaces in the geography of Abyssinia and of the various affluents of the Nile flowing from the snow-mountains of that African Afghanistan in the direction of the Atbara, the Blue Nile, and the Sobat. The Sobat had been explored for a hundred miles or so, as far as steamers could penetrate. The White Nile had been surveyed from Khartum to the junction of the Bahr-al-Ghazal. South of that point, under the name of Mountain Nile, it and some of its branches, such as the Giraffe River, had also been explored, and the River of the Mountains, as the Upper White Nile is called by the Arabs, had been ascended to a little distance south of Gondokoro. The Bahr-al-Ghazal, the great western feeder

of the Nile, and several of its more important affluents, such as the Jur, had been made known, and the existence of the Nyam-nyam cannibal country ascertained. But the ultimate sources of the Nile stream were still undiscovered. This problem was now to be attacked from two very different directions.

In 1829 the Church Missionary Society had resolved to attempt the evangelisation of Abyssinia, and sent missionaries to the northern part of that country. Amongst these missionaries, in 1840, was a Würtemberg student named Ludwig Krapf, sent to prospect in northern Abyssinia. But the Abyssinians eventually resented this missionary enterprise, and Krapf and some others were expelled from the country in 1842.

Hearing good accounts of the more genial nature of the Zanzibar Arabs and of their Maskat ruler, Krapf journeyed down the East Coast of Africa and visited the Sayyid of Zanzibar (Majid); he obtained permission from this Arab viceroy [1] to settle at Mombasa and establish a Christian mission there. Krapf was soon joined by John Rebman (another Würtemberger). Both were well-educated men, who had been trained at Tübingen, at Basle, and in Rebman's case at an English missionary college. They acquired a knowledge of Arabic, and soon added to it an intimate acquaintance with several African tongues. Their in-

[1] Down to about 1860 the Arab ruler over East Africa was the Imam of Maskat, the sovereign of the principality of Oman on the Persian Gulf. For more than a hundred years, however, the Imam of Maskat deputed one of his sons or kinsmen to be Sayyid of Zanzibar.



L. Krapf

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REV. DR. J. LUDWIG KRAPF.

tercourse with the Arabs and the Negroes at Mombasa and its vicinity soon opened their ears to remarkable stories of the unknown interior. Already the Arabs were pushing farther and farther inland from these ports on the Zanzibar coast, and some of them had reached Lake Tanganyika, while they had also heard rumours of the Victoria Nyanza. The natives further told the missionaries of the wonderfully high mountains distant from ten to thirty days' march from the coast, the tops of which were covered with "white stuff." By 1850, through the agency of the Church Missionary Society, Rebman and Krapf were able to report from their own observation the existence of snow-mountains nearly under the equator, Rebman having discovered Kilimanjaro in 1848, while in the following year Krapf not only confirmed this discovery, but pushed his way far enough inland to catch a glimpse of Mount Kenya, the distance of which from the coast he underestimated. The missionaries also sent to Europe about the same time stories of a great inland sea. They had gathered up the reports of Lake Nyasa, Tanganyika, and the Victoria Nyanza, and had imagined these separate sheets of water to be only parts of a huge, slug-shaped lake as big as the Caspian Sea. They also reported the separate existence of Lake Baringo. These stories they illustrated by a map (Erhardt and Rebman) published in 1855. Their stories of snow-mountains in equatorial Africa only drew down on them for the most part the ridicule of English geographers, among whom was a

wearisome person, Mr. Desborough Cooley, who published fine-spun theories based on a fantastic interpretation of African etymology; but their stories were believed in France, and they were awarded a medal by the Paris Geographical Society. They also impressed an American poet, Bayard Taylor, who in 1855 wrote some stirring lines on Kilimanjaro:—

> "Remote, inaccessible, silent, and lone—
> Who from the heart of the tropical fervours
> Liftest to heaven thine alien snows."

These stories from the missionaries revived the interest in Ptolemy's Geography. The Nile lakes were once more believed in, especially as the discovery of Kenya and Kilimanjaro appeared to confirm the stories of the Mountains of the Moon. This idea indeed was additionally favoured by the fact that the missionaries often referred to their hypothetical lake as the Sea of Unyamwezi, which name they rightly explained as meaning (we know not why) the "Land of the Moon." [1]

[1] By its own people this country is called *Wu-nya-mwezi*. *Wu-* is a degenerate form of the Bantu *bu-* prefix, which is often used to indicate a country. *Nya* is a particle, meaning "of," or "concerning," and *mwezi* = the moon. Unyamwezi is, however, so far away from Ruwenzori on the one hand or Kilimanjaro on the other that it is difficult to associate its name (which so far as we know has been in existence for about four centuries) with that of the snow-mountains.

CHAPTER XI

BURTON AND SPEKE

NILE exploration from the north had stopped in 1851 at the rapids south of Gondokoro. It was now felt that the problem should be attacked from other directions. In 1839 the British government had formally annexed Aden at the southwestern corner of Arabia as a coaling station for ships plying between Suez and India. Aden is opposite the Somali coast, and has been for many centuries the outpost of civilisation with which the Somali have traded. It was impossible to possess Aden long without desiring to become acquainted with the character of the African coast across the gulf, especially as Aden depended so much on Somaliland for its supplies of meat, grain, and fodder, and the ostrich feathers, ivory, and skins sold in the Aden bazaars. Aden was, and is still, under the government of India, and officers of the Indian army soon found their way across to Somaliland on authorised or unauthorised surveys. Among these was Lieutenant Cruttenden, who collected some new information about the sterile country beyond the coast. In 1854 a remarkable man came to Aden as an officer in the Indian garrison,—Lieutenant Richard Francis Burton, fresh from his wonderful journey as

a pilgrim to Mecca. Burton induced the authorities to support him in a project for entering inner East Africa through Somaliland, and thus perhaps striking at the sources of the Nile. Another explorer in the bud, Lieutenant John Hanning Speke, reached Aden soon afterwards, and obtained permission to join Burton's expedition.

Whilst waiting for a time thought to be favourable for travelling southwards into the Ogadein country, Burton went off alone on a remarkably plucky journey to the mysterious city of Harrar, to-day a frontier town of Abyssinia. Harrar, lying to the south of that Rift valley, which can be traced after a few interruptions from the Gulf of Tajurra right down into British and German East Africa, was a walled city inhabited by a Semitic people, or rather a people still retaining the use of a Semitic dialect akin to those of Abyssinia and South Arabia.

Speke did a good deal to increase our knowledge of the remarkable fauna of Somaliland, but the Burton-Speke expedition into that country got no great distance inland, and ended in disaster, owing to the suspicions of the Somali. The expedition was attacked close to the seashore at Berbera. One of the party, Lieutenant Stroyan, was killed. Speke was severely, and Burton slightly wounded. Speke is of opinion that much of this disaster was due to the mismanagement of Burton. He considers that if, when the expedition was first organised, instead of fussing about mysterious visits to Harrar and waiting for this

thing and that thing, the whole expedition had started c[illegible]boldly for the interior, the Somali would have had n[illegible]time to cultivate suspicion, and would have op[illegible]ed no resistance. It is quite conceivable that Speke [illegible] right, and that if the expedition had started with [illegible]omptitude it might have reached the confines of Shoa or the Gala country in the direction of modern British East Africa. As it was, the attack on Burton's expedition closed for some thirty years any attempt at penetrating the mysterious country of the Somali, with its remarkable mammalian fauna and its as yet unexplained ruins.[1]

Burton's attention was now drawn to the stories of the Mombasa missionaries. With some difficulty he obtained from the Foreign Office, the East India Company, and the Royal Geographical Society funds to equip an expedition which should start from the Zanzibar coast in search of the great lake. As Speke had lost over five hundred pounds worth of private property

[1] Speke and others are of opinion that there was a considerable civilisation in Somaliland at one time, which completely disappeared after the Muhammadanising of the country. The Somali (except those of the far interior) were converted to Islam by Arab immigrants in the fifteenth century. Prior to this they had been Christian to some extent, a much degraded type of Christianity having penetrated southwards from Abyssinia. It is hardly necessary to point out that the Somali and Gala are practically one people in race and language. Gala is only apparently a cant term originating in Abyssinia and unknown to the people whom we call by that name. It is also interesting to note that Speke and other explorers heard in Somaliland, in the "early fifties," of the existence of a great lake far in the interior which was in all probability the Victoria Nyanza. The present writer has endeavoured to show, in his book on the Uganda Protectorate, that in ancient times considerable trading intercourse was kept up between Somaliland and the northeast shores of the Victoria Nyanza.

in the disaster which fell on the Somali expedition, Burton invited him to join this new expedition as his lieutenant. Burton had been distracted for a time from this idea by the Crimean War, but when peace was declared, he obtained the sanction of the Geographical Society to his plans, and started with Speke for India to smooth the difficulties placed in his way by the Indian government. At the very end of 1856 the explorers reached Zanzibar. While the expedition was being organised at Zanzibar, Burton and Speke visited Pemba, Mombasa, and the mission station ten miles in the interior. Fired by the stories of the snow-mountains and the rumour of the great lake of Ukerewe,[1] Speke proposed that they should bring their expedition to Mombasa and start for the lake by way of Kilimanjaro. The Masai, however, were raiding the country right up to within ten miles of Mombasa, and in consequence Burton was afraid to take this route. The explorers visited the mountainous country of Usambara, which is close to the coast, and then returned to Zanzibar. The original instructions, however, of the Royal Geographical Society (which had found the bulk of the funds) had been: "The great object of the expedition is to penetrate inland, from Kilwa or some other place on the East Coast of Africa, and make the best of its way to the reputed Lake of Nyasa." Burton found, however, that the Arabs of Kilwa were strongly opposed

[1] Victoria Nyanza. Often so called in earlier days by the Arabs, from Bukerebe, a large island near the south shore.

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A Swahili Arab Trader.

to white men penetrating the interior in that direction. He therefore decided to choose the line of least resistance at Bagamoyo, and go along the now beaten track of the Arabs to Ujiji. When Burton and Speke reached Unyamwezi (Kaze) at the close of 1857, they were received with much kindness and courtesy by the Zanzibar Arabs established there, especially by Sheikh Snay, who had been the first Arab to reach Uganda. Snay promptly cleared up the mystery of the missionaries' great lake, telling the explorers that it was three different lakes (Nyasa, Tanganyika, and Victoria) rolled into one. The Arabs had also heard through the Banyoro rumours of European vessels travelling up the White Nile to the Bari country. Burton was continually prostrated with fever during this stay in Unyamwezi, so that the command of the expedition and the solution of its difficulties temporarily devolved on Speke. The main trouble, as on all these expeditions, was with the question of transport. It was very difficult to obtain porters to proceed in any direction north or west of Unyamwezi. At last they induced a number of their paid-off men who had accompanied them through the coast lands to rejoin and convey the loads as far as Ujiji. In that way Burton and Speke discovered Lake Tanganyika, and Speke thought (wrongly) that in the great tilted plateau which they ascended on the east, and from which they looked down on the beautiful blue waters of the lake, he had discovered the Mountains of the Moon.

After a somewhat half-hearted exploration of the northern portion of Tanganyika in an Arab dau, during which they heard and partially verified the fact that no river flowed out of Tanganyika on the north, but that the Rusizi flowed *into* the lake[1] in that direction, they returned to Ujiji, and from this point made their way back to Kaze in Unyamwezi. Here Burton again became ill. Speke with some difficulty obtained from him permission to travel northwards in search of the Lake of Bukerebe. Burton yielded his consent reluctantly, and appears to have given but grudging assistance in the shape of men and guides. Full of energy, however, Speke gathered together a caravan, which crossed Unyamwezi and Usukuma, and on the 30th of July, 1858, he saw the Mwanza creek, one of the southernmost gulfs of the Victoria Nyanza. The extremity of this he named "Jordans Nullah."[2] Travelling northwards along this creek, on August 3d (1858), early in the morning, Speke saw the open waters of a great lake with a sea horizon to the north. Much of the horizon was shut in by great and small islands, but Speke detected through their interstices the vast extent of open water which stretched to the north.

He realised to the full the wonder of his discovery, and the obvious probability that this mighty lake would

[1] Though Burton subsequently recanted this opinion in order to embarrass Speke's theories, and declared that the Rusizi was the outlet of Tanganyika.

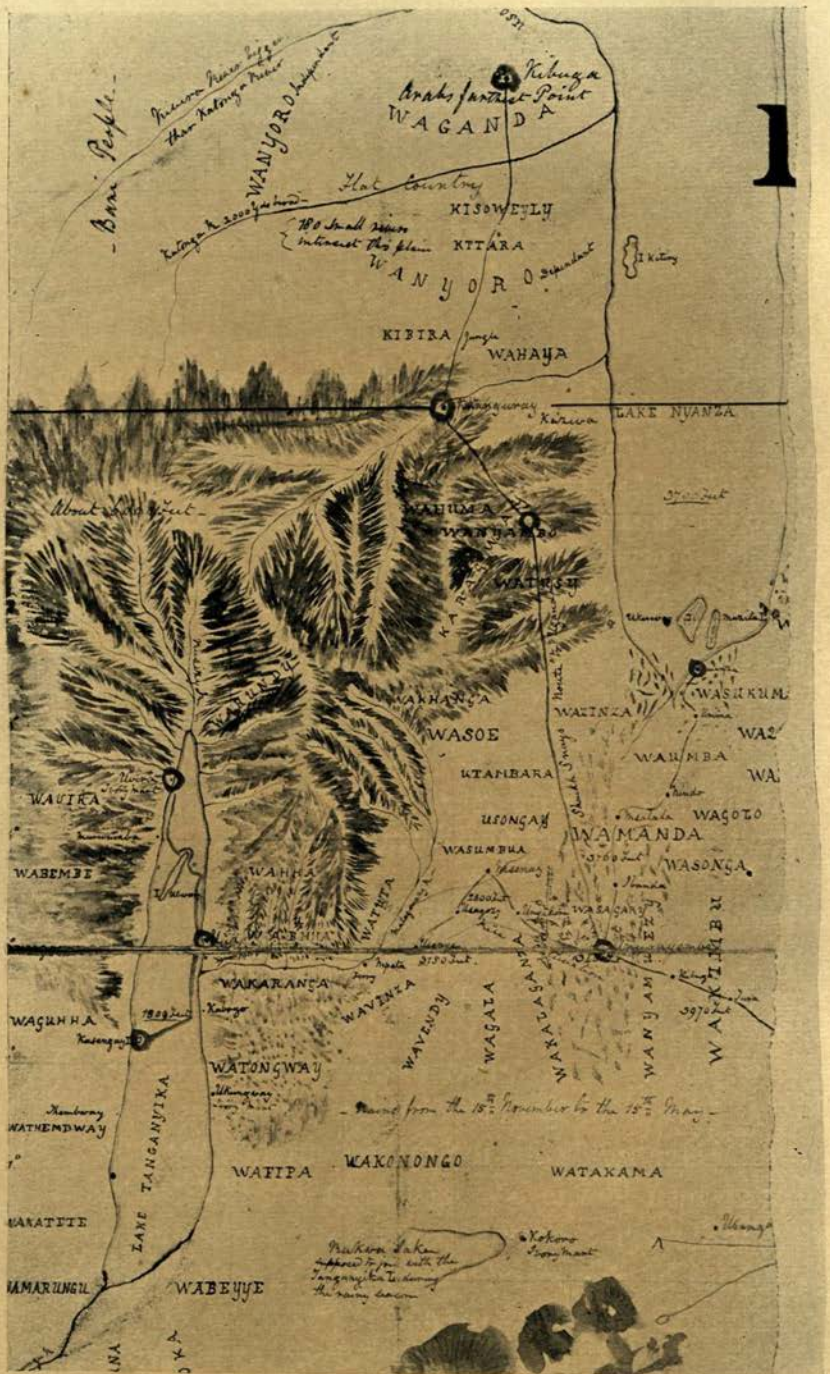
[2] After his Somersetshire home, and the Indian word for a creek — *álla.*

prove to be the main headwaters of the White Nile. Even Speke, however, failed to appreciate then or subsequently the full extent of the Nyanza's area. He only guessed its breadth at over one hundred miles, and its length from north to south at under two hundred. Speke inquired from the natives the name of this freshwater sea, and they replied "Nyanza," which in varying forms such as Nyanja, Nyasa, Mwanza, Kianja, Luanza (according to prefix), is a widespread Bantu root for a large extent of water, — a river or a lake. To this term Speke added the name of Victoria after the Queen of England. The following extract from his book, "What Led to the Discovery of the Source of the Nile," gives his first impressions of the great lake: —

"The caravan, after quitting Isamiro, began winding up a long but gradually inclined hill [which, as it bears no native name, I shall call Somerset] until it reached its summit, when the vast expanse of the pale blue waters of the Nyanza burst suddenly upon my gaze. It was early morning. The distant sea-line of the north horizon was defined in the calm atmosphere between the north and the west points of the compass; but even this did not afford me any idea of the breadth of the lake, as an archipelago of islands, each consisting of a single hill, rising to a height two hundred or three hundred feet above the water, intersected the line of vision to the left; while on the right the western horn of the Ukerewe Island cut off any further view of its distant waters to the eastward of north. A sheet of water — an elbow of the sea, however, at the base of the low range on which I stood — extended far away to the eastward, to where, in the

dim horizon, a hummock-like elevation of the mainland marked what I understood to be the south and east angle of the lake. The important islands of Ukerewe and Mzita, distant about twenty or thirty miles, formed the visible north shore of this firth. The name of the former of these islands was familiar to us as that by which this long-sought lake was usually known. It is reported by the natives to be of no great extent, and though of no considerable elevation, I could discover severable spurs stretching down to the water's edge from its central ridge of hills. The other island, Mzita, is of greater elevation, of a hog-backed shape, but being more distant its physical features were not so distinctly visible.

"In consequence of the northern islands of the Bengal Archipelago before-mentioned obstructing the view, the western shore of the lake could not be defined: a series of low hill-tops extended in this direction as far as the eye could reach; while below me, at no great distance, was the *débouchure* of the creek which enters the lake from the south, and along the banks of which my last three days' journey had led me. This view was one which even in a well-known and explored country would have arrested the traveller by its peaceful beauty. The islands, each swelling in a gentle slope to a rounded summit, clothed with wood between the rugged, angular, closely-cropping rocks of granite, seemed mirrored in the calm surface of the lake, on which I here and there detected a small black speck,—the tiny canoe of some Muanza fisherman. On the gently shelving plain below me blue smoke curled among the trees, which here and there partially concealed villages and hamlets, their brown thatched roofs contrasting with the emerald-green of the beautiful aloes, the coral flower-branches of which cluster in such profusion round the cottages, and form alleys and hedgerows about the villages as ornamental as any garden



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SKETCH MAP BY BURTON AND SPEKE, 1858.

From the Original in the possession of the Royal Geographical Society.

shrub in England. But the pleasure of the mere view vanished in the presence of those more intense and exciting emotions which are called up by the consideration of the commercial and geographical importance of the prospect before me.

"I no longer felt any doubt that the lake at my feet gave birth to that interesting river, the source of which has been the subject of so much speculation, and the object of so many explorers. The Arabs' tale was proved to the letter. This is a far more extensive lake than the Tanganyika; 'so broad that you could not see across it, and so long that nobody knew its length.' I had now the pleasure of perceiving that a map I had constructed on Arab testimony, and sent home to the Royal Geographical Society before leaving Unyanyembe, was so substantially correct in its general outlines I had nothing whatever to alter. Further, as I drew that map after proving their first statements about the Tanganyika, which were made before my going there, I have every reason to feel confident of their veracity relative to their travels north through Karagwe, and to Kibuga in Uganda."

Unable to delay longer in his exploration of the southern shores of the Victoria Nyanza, as he had promised to rejoin Burton by a certain date, Speke returned to Kaze in Unyanyembe, to find his companion vexed at the great discovery which he had made. Speke did not pursue the argument as to the Victoria Nyanza being the main source of the Nile. The two men journeyed together on more or less bad terms to Zanzibar, where Burton remained to wind up the affairs of the expedition, Speke returning direct to England. Here the wonderful news he brought

prompted the Royal Geographical Society to gather together the funds for a fresh expedition, which was to enable Speke to make good his discovery of the lake, and to prove to the satisfaction of the scientific world that this sheet of water was the ultimate source of the White Nile.

CHAPTER XII

SPEKE AND THE NILE QUEST

JOHN HANNING SPEKE was born on May 27, 1827, at Orleigh Court, Bideford, North Devon. His father's family had its seat in Somersetshire, near the pretty old town of Ilminster, and was of ancient descent. The name was spelled L'Espec in Norman times, and apparently meant a spike or porcupine quill (the family crest was a porcupine).[1] Speke's mother was a Miss Hanning of Dillington Park, also in Somerset. He was one of four sons, and had several sisters. As his father (Mr. William Speke), after he came into the family place of Jordans near Ilminster, had two church livings to dispose of, he was desirous that two at least of his sons might be brought up to the Church. John Hanning and Edward Speke (who was killed at Delhi) declined such a career, however, and wished to go into the army. Speke was a restless boy, who detested school, declaring that a sedentary life made him ill. Whenever

[1] Walter L'Espec, in the reign of Henry I., founded three abbeys,—Kirkham, Rivaulx, and Warden. In the thirteenth century the L'Especs altered the spelling of their name to Speke. One Speke lost property by faithfulness to Charles I.; another got into (and out of) trouble in the reign of Charles II. by advocating the claims to the succession of the Duke of Monmouth.

he could escape from his masters, he was always out in the woods and on the heaths, displaying a great devotion to natural history and sport.

When only seventeen his mother, who was acquainted with the Duke of Wellington, obtained for her two sons, John and Edward, commissions in the Indian army. The Duke asked to see the boys, and congratulated their mother on two such fine young fellows coming forward for service in India. Edward Speke, as already mentioned, was killed during the Indian mutiny at the siege of Delhi. John Hanning Speke himself, between the ages of seventeen and twenty-two, had seen a good deal of military service in India, and took part in the last Sikh war, having been at the battles of Ramnagar, Sedulapur, Chilianwala, and Guzerat.

In 1849 he first entertained the idea of exploring equatorial Africa. Prior to this date he had shot a great deal in India, and subsequently explored south-western Tibet. His first interest in Africa lay in the possibility of amassing magnificent zoölogical collections to illustrate the fauna of that wide stretch of country which lay between South Africa and Abyssinia. He wished to supplement the researches of Rüppell on the northeast and of Harris, Gordon Cumming, and others in the far south. Even at that date Speke desired to land at some point on the East African coast, and strike across to the Nile, descending the Nile to Egypt with his zoölogical collections.

He obtained furlough in the autumn of 1854, and

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JOHN HANNING SPEKE.

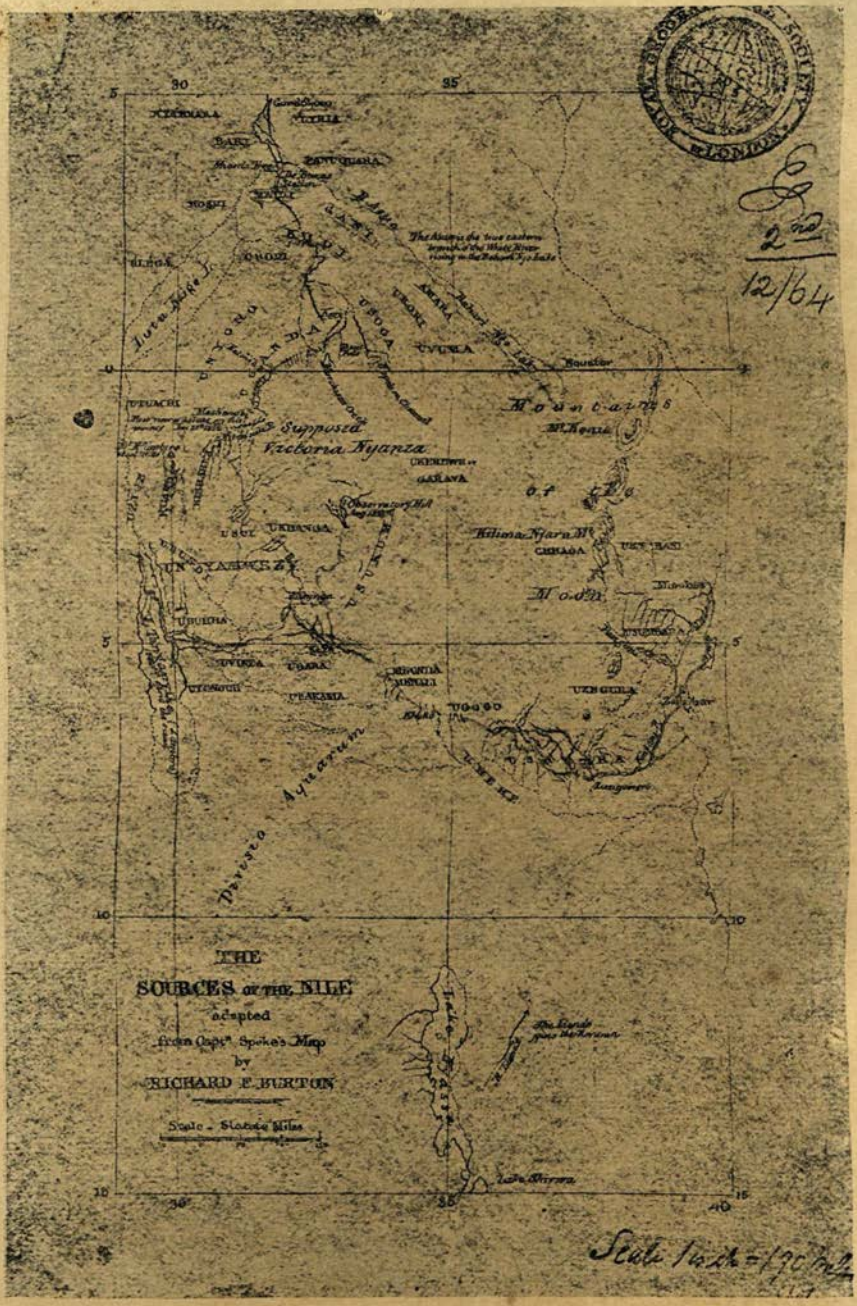
At the age of 17, on first receiving his commission in the Indian Army.

proceeded to Aden with the intention of landing on the opposite coast of Somaliland. Arrived at Aden, his plans met with stubborn opposition from Colonel Sir James Outram, the Resident, who not only opposed Speke's journeys, but even those which were officially ordered by the Bombay government to be conducted by Richard Burton. But the Bombay government, in regard to the latter plan, insisted on Sir James Outram withdrawing his opposition. Sir James Outram then attached Speke to this expedition, knowing him to be a good surveyor. Speke had in fact mapped a good deal of southwestern Tibet, and was thoroughly at home with the sextant. The results of this venture have been described in the preceding chapter. The Somali expedition led to Speke's accompanying Burton in 1857.

Speke returned to England alone on the 8th of May, 1859. The day after his arrival Sir Roderick Murchison, President of the Royal Geographical Society, decided that Speke was to be sent back as soon as possible to substantiate his discovery of the Victoria Nyanza, and to ascertain its connection with the Nile system. But although funds were soon secured by public subscription, it was deemed advisable by Speke that the new expedition should not start for nearly a year. Captain James Augustus Grant, who had shot with Speke in India, begged leave to accompany him as his lieutenant.

Burton returned to England in 1859, somewhat chagrined to hear of the enthusiasm with which Speke's

discovery of the Victoria Nyanza had been received, — an enthusiasm which to some extent had put the revelation of Lake Tanganyika in the shade. Burton nevertheless was awarded, in 1860, the Gold Medal of the Royal Geographical Society, and in returning thanks for this honour, he uttered a handsome acknowledgment of Speke's services as surveyor on this expedition to the great lakes. But the two men were evidently on bad terms, and though the fault of their disaccord may have lain with Burton's conduct, the world knew of it first through the writings of Speke in "Blackwood's Magazine," and later (in 1864) in the republication of these Blackwood articles with additions under the title of "What Led to the Discovery of the Source of the Nile." In these works Speke makes certain stinging references to Burton. So far as an impartial verdict can be arrived at, Speke in all probability spoke the truth; but he was perhaps unduly hard on his companion, for whom he had evidently a great personal dislike and some degree of contempt. In some respects Speke's own education had been defective (at least, we are told that he was so much of a truant as to receive but little schooling before going to India). He may, therefore, have been unable to appreciate to the full Burton's undoubted talents. Yet again, in reading Speke's books it would occur to no one to say that he was deficient in education. He had become an admirable geographer, a keen naturalist; and whether his writing was or was not without grace of style, it was



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BURTON'S IDEA OF THE NILE SOURCES, DEC. 1864.

certainly pithy and to the point. His great book, the "Discovery of the Source of the Nile," is good reading all through, and strikes one who, like the present writer, has been over much of the same ground, as being singularly truthful. It is as good a book as any that Burton himself ever wrote on Africa, not excepting even the excellent "Lake Regions." Speke was a fine figure of a man, — tall and handsome in an English style, with blue eyes and a brown beard. There is no doubt that he impressed the natives favourably wherever he went as being a man and a gentleman. Yet there was a little hardness in his disposition, something pitiless in his criticisms of Burton. Burton's own attacks on Speke scarcely appeared in a public form until four years after Speke had returned to Africa. They were angry, and somewhat clumsy, but not so incisive as Speke's criticisms of Burton. Burton's chief revenge lay in endeavouring for many years to prove that Speke had made no very great discovery; that his Victoria Nyanza was not the greatest lake in Africa and the main source of the Nile, but a network of swamps and lakelets. Burton hailed with delight Sir Samuel Baker's description of the Albert Nyanza as being the ultimate origin of the White Nile. To meet this view he, against his own convictions, tried to make the Rusizi River flow out of the north end of Tanganyika instead of flowing into that lake, in the hope that Tanganyika was thus connected with Lake Albert, — a fact which, if proved, would dwarf the discovery of

the Victoria Nyanza into insignificance. To this end he published a map, and endeavoured to persuade every geographer who would listen to him that the Victoria Nyanza was more than half a myth, and that its contribution to the Nile waters was insignificant compared to the supply received from the western chain of lakes.

Speke's character was that of many an officer in the British army. Though his family claimed Norman descent, his physique was emphatically Anglo-Saxon. Born almost without fear, he had perhaps too ready a contempt for others of weaker nerve who could better weigh the chances of danger and the counsels of prudence. Speke was a splendid shot, and accurate in those astronomical observations necessary to the determination of geographical positions. He had a good knowledge of Hindustani,[1] but not that great readiness in picking up languages which was Burton's forte. Yet he was perfectly honest about this, as about every talent which he possessed or lacked. On the other hand, his great dislike of Bur-

[1] In one of his books Speke shows us how Burton and himself managed to communicate with the natives. Neither of them — not even Burton — had a sufficient knowledge of Kiswahili during their journey to Tanganyika to talk direct with their porters. They conversed with "Bombay," their Swahili interpreter, in Hindustani. Burton also was able to speak Arabic with the Arab traders. Both, perhaps, are a little too inclined to overlook this language difficulty in describing their conversations with native chiefs. In all cases these must have been carried on in the following manner: The chief would probably speak in his native language, which would be translated by somebody else into Swahili, and this again would be translated by Bombay, or Frij, or some other interpreter, into Hindustani or English; or, again, Burton's information might be rendered by some Arab in Arabic. Direct communications no doubt were sometimes made by both parties in broken Swahili.

ton sometimes made him unjust in denying to his companion the qualities of mind he really possessed. Burton's *résumé* of ethnological information concerning the East African tribes from the Zanzibar coast to Uganda and the shores of Tanganyika is masterly, and due to the most careful note-taking. It may not, perhaps, be out of place if I quote a few lines from a letter written by Sir Samuel Baker to a correspondent:[1] —

"Speke comes first as a geographer and African explorer. He was superior to Burton as a painstaking, determined traveller, who worked out his object for the real love of geographical research, without the slightest jealousy of others. . . . But Burton excelled Speke in cleverness and general information, though he was not so reliable. Speke was a splendid fellow in every way. . . . Grant (his companion) was one of the most loyal and charming creatures in the world. Perfectly unselfish, he adored Speke, and throughout his life he maintained an attitude of chivalrous defence of Speke's reputation. . . . They were all friends of mine."

There is little doubt that Burton, who had displayed such cool courage on his journey to Mecca, had received a shock over the Somali attack on his camp in 1854, from which he never wholly recovered. His proceedings in connection with the Tanganyika journey were marked by something approaching timidity. It is probable that had Speke been in command of this

[1] Mr. T. Douglas Murray, who afterwards became Baker's biographer. This letter was written near the close of Sir Samuel Baker's life, on the 22d of August, 1893.

expedition much more would have been done than was actually accomplished. Feeling this very strongly, and realising that he had contributed a good deal of his private funds to the resources of this and the preceding Somali expedition, Speke considered himself quite justified in hurrying home with the news of the expedition's discoveries, the more so because Burton had snubbed him for his pains in connection with the Victoria Nyanza. I do not think it can be said that he ever treated Burton unfairly, but there was perhaps in his behaviour a touch of hardness and a lack of generosity. He heartily disliked Burton, and that was the reason.

In James Augustus Grant (as is indicated by the quotation from Sir Samuel Baker's letter) Speke had found a companion after his own heart. Grant was a handsome Scotchman of the "Iberian" type, — black hair, dark eyes, dark eyebrows, clear complexion. In later life the hair and the beard turned white, but the face remained singularly youthful. Of Grant Sir Samuel Baker writes: "He was the most unselfish man I ever met; amiable and gentle to a degree that might to a stranger denote weakness, but, on the contrary, no man could be more determined in character or unrelenting when once he was offended." Grant, like Speke, was a sportsman; he was also — in a somewhat uninstructed way — a zoölogist and a botanist. The botany of Africa, in fact, was his principal hobby. He painted cleverly in water-colours, and did more than anybody else, down to a quite recent date, to put be-

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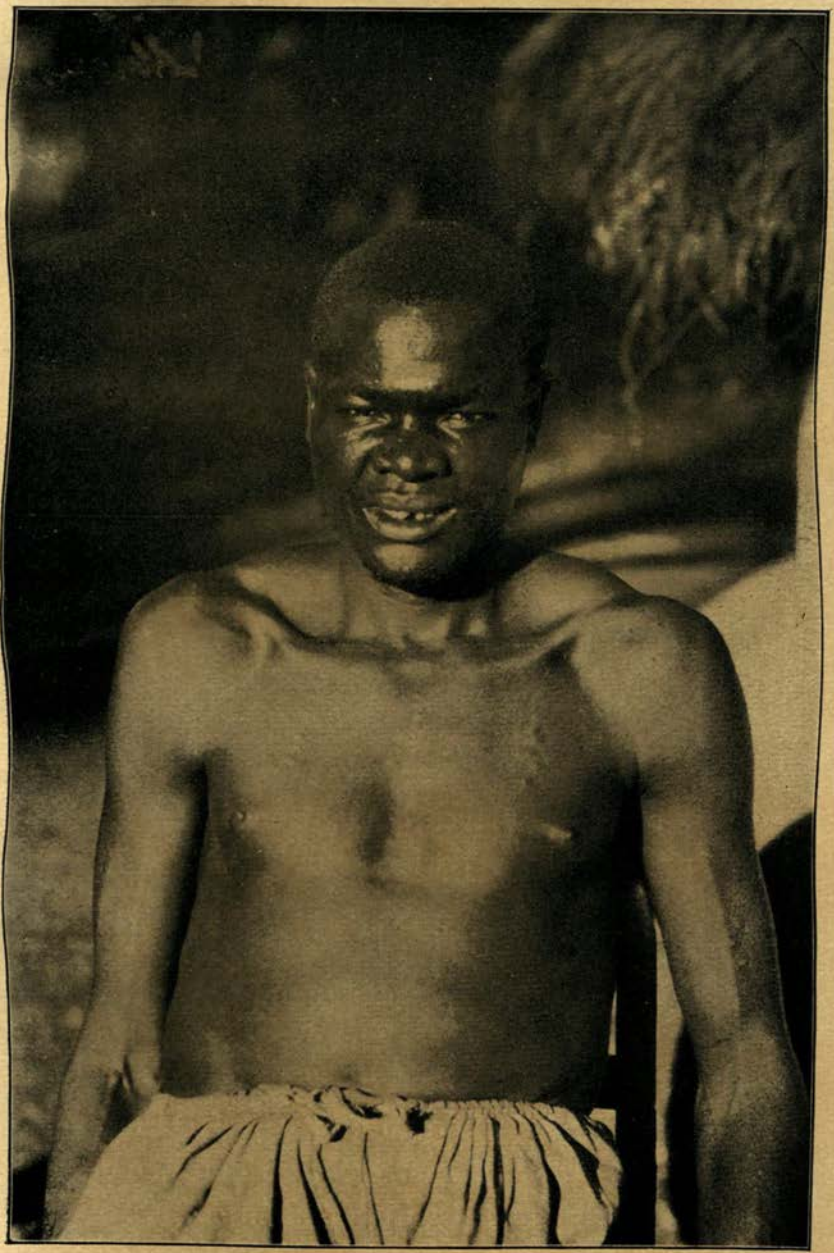
JAMES AUGUSTUS GRANT.

fore our eyes some idea of the beautiful coloration of African wild flowers. He published at his own expense, through the Linnæan Society, three volumes illustrating the more notable features of his botanical collections. Although most of these flowers were drawn for him by scientific draughtsmen, his own sketches supplied the means for an accurate coloration which could no longer be ascertained from the dried specimens. In this particular Grant has made an important contribution to African research.

Before leaving England Speke made arrangements, through the British consul at Zanzibar, to send on an instalment of porters and property to Unyamwezi, intending to follow his old route to the Victoria Nyanza. The Indian government, which has often done so much to assist the opening up or the settlement of eastern Africa, gave to Speke's expedition fifty carbines and twenty thousand rounds of ammunition, and lent him as many surveying instruments as were required. The government of India also put at his disposal rich presents (gold watches) for such Arabs as had assisted him on the former expedition.

Petherick, whose explorations have been treated of in the previous chapter, had recently arrived in England from the Upper Nile, and had been promoted to be British Consul. Speke, before he left England, made arrangements with Petherick to place boats at his disposal at Gondokoro, and to send a party of men in the same direction to collect ivory and to wait about in the vicinity of Gondokoro in order to assist

him when he should reach that part of the Nile. Petherick was also invited to ascend the Asua River (then thought to be a branch of the Nile instead of an affluent) in case it should be another means of communication with the Victoria Nyanza. Speke and Grant journeyed out by way of the Cape, and at Cape Town stayed for a while with the great Sir George Grey, who, taking the greatest interest in their undertaking, induced the Cape government to grant the sum of three hundred pounds to be spent in buying baggage mules. With these mules were sent ten Hottentot mounted police. From Cape Town the expedition was conveyed on a gunboat to Zanzibar. At the commencement of October, 1860, Speke's expedition was organised, and he started for the interior. His expedition consisted of one corporal and nine privates of the Hottentot police; one jemadar and twenty-five privates of the Baluch soldiery of the Sultan of Zanzibar; one Arab caravan leader and seventy-five freed slaves; one kirongozi or guide and one hundred negro porters; two black valets, who had both been man-of-war's men and could speak Hindustani; Frij, the black cook (also from a man-of-war), and the invaluable "Bombay," who was interpreter and factotum. (The expedition took with it twelve transport mules and three donkeys, also twenty-two goats for milk and meat. The Hottentots soon broke down in health, and took to riding the donkeys, the mules being loaded with ammunition.) The white men, as a rule, had to walk. The Hottentots were



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A MNYAMWEZI PORTER.

sometimes useful as camp cooks, but they suffered so much from fever as to become a burden to the expedition.

"My first occupation [writes Speke][1] was to map the country. This is done by timing the rate of march with a watch, making compass bearings along the road, or any conspicuous marks, — as, for instance, hills off it, — and by noting the watershed, — in short, all topographical objects. On arrival in camp every day came the ascertaining, by boiling-point thermometer, of the altitude of the station above the sea-level; of the latitude of the station by the meridian altitude of a star taken with a sextant; and of the compass variation by azimuth. Occasionally there was the fixing of certain crucial stations at intervals of sixty miles or so, by lunar observations . . . for determining the longitude, by which the original-timed course can be drawn out with certainty on the map by proportion. . . . The rest of my work, besides sketching and keeping a diary, which was the most troublesome of all, consisted in making geological and zoölogical collections. With Captain Grant [illegible] botanical [illegible] also [illegible] in [illegible]

continuously from the southwest coast of Portugal, through North Africa, Egypt, and part of the Somali country, across Arabia to eastern India.[1] In connection with this it may be mentioned as a point of great interest that Mr. C. W. Hobley (Sub-Commissioner in the East Africa Protectorate) discovered deposits of limestone in the Nyando valley, about forty miles from the northeast corner of the Victoria Nyanza.

Speke's expedition travelled on with little trouble as far as Usagara. The complete harmony which existed at all times between Speke and Grant contributed much to the smoothness of the arrangements. At Usagara, however, they had trouble with one of their caravan leaders (Baraka). The Hottentots became increasingly sick and helpless, and Captain Grant was seriously ill with fever. However, they pushed on to that East Coast range of terraced mountains which is nowadays dotted with not a few mission and [illegible] stations. There is charming and fantas- [illegible] parts to [illegible] Usagara

Ugogo, which is a rolling plateau to the west of the Usagara range, gave the travellers some trouble. Here, as elsewhere, there was famine, owing to the scarcity of water and the incessant raids on the part of the Masai from the north or the Wahehe from the south. The Wagogo themselves are a truculent people, who have given serious annoyance to caravans during the last hundred years. They speak a Bantu language, but have very much more the physical aspect of the Nilotic tribes to the north, being, like them, very much addicted to nudity.[1] On the plains of Ugogo Grant killed the largest and handsomest of all the gazelles, which had henceforth borne his name.[2]

In Ugogo Speke also records the existence of that strange archaic type of dog, the *Otocyon*, a specimen of which he killed. On the western frontier of Ugogo the expedition was menaced with serious trouble. The rapacious native chief made increasing demands on them for taxes. A number of their porters deserted, and their Wanyamwezi carriers who had agreed to replace the missing men were scared away by the threats of the Wagogo. In addition, the rainy season had come on, and was unusually heavy, flooding the country in all directions. The expedition would have come to grief but for the game shot by its leaders, which kept

[1] Worthy of mention here as being the southernmost extension of "Nilotic" influence among the East African races.

[2] *Gazella granti*, the horns of which are far longer than is the case with any other gazelle, the animal itself being about the size of a fallow deer.

the men from starvation. It was only got out of its difficulties at last by the friendly help of the Arabs of Unyamwezi, who sent seventy porters to the relief of the explorers. When Speke reached the borders of Unyamwezi and took stock of his position, he found that six of his Hottentots were dead or had been sent back to the coast in charge of several free porters, that twenty-five of the Sultan of Zanzibar's slaves and ninety-eight of the original Wanyamwezi porters had deserted, all the mules and donkeys were dead, and half of his property had been stolen.

Unyamwezi, "the Land of the Moon," is a remarkable part of eastern Africa. Practically it consists of nearly all the land lying between the Victoria Nyanza on the north and the vicinity of Lake Rukwa on the south. It is longer (from north to south) than it is broad. Prior to the German occupation it had ceased to be a single kingdom, and was divided into a number of small and mutually hostile states only united by the common bond of the Kinyamwezi language. This varies a good deal in dialect, though it has distinctive features of its own. In Usukuma to the north it offers more resemblance to the languages of the Uganda Protectorate; on the south it links on in some way with the languages of the Nyasa-Tanganyika plateau. How the country became associated with the moon is not known; for the most part of it is an undulating plateau, with occasional rift valleys that contain salt or fresh water pools. A great part of its drainage goes towards Tanganyika or Lake Rukwa.

The language of its people is typically Bantu, but they would seem to be a very mixed race physically. Some of them have the ugly features of the Congo Pygmies; others again are strikingly like the Galas and the Bahima. The bulk of the nation consists of tall and very muscular Negroes, with thoroughly Negro features. They are celebrated as porters, being able to carry burdens twice as heavy as could be offered to any other carriers. They have also a keen instinct for trade, and it is supposed that, first of all Bantu nations of the East African interior, they opened up communications with the coast. There has been trade going on between the Zanzibar coast and Unyamwezi for at least five centuries, — a trade, however, which has been subject to prolonged interruptions. The Zanzibar Arabs did not settle in the country until a hundred years ago.

Conversing with the Arabs of Unyamwezi, Speke again heard from them of "a wonderful mountain to the northward of Karagwe[1] so high and steep that no one could ascend it. It was seldom visible, being up in the clouds, where white matter — snow or hail — fell on it." The Arabs also spoke of the other lake, which was salt and also called Nyanza, but quite different from the Victoria.[2] From the Arabs Speke also heard of the naked Nile Negroes to the north and east of Unyoro, and of those of them

[1] A Hima state, lying to the west of the Victoria Nyanza.

[2] This, of course, was Lake Albert, the waters of which are slightly brackish. But it is often called the Salt Lake by the Arabs, from the large deposits of salt on its shores.

(the Lango) who, like the Turkana farther east, wear their hair in enormous bags down the back. They told him that Lake Tanganyika was drained by the Marungu River.[1] Some of this knowledge Speke perverted to fit in with erroneous and preconceived notions. At this interval of time, however, one is surprised at the correctness of geographical information given to Burton, Speke, and Baker by the Arabs. One is still more surprised that the constant hints as to the great snow-mountain range of Ruwenzori should have so often fallen on deaf ears.

In Unyamwezi Speke's further progress was much delayed, owing to the difficulty in getting porters. The country to the east from which he had come was convulsed with wars between the Arabs and the natives. In these wars figured, as a bandit leader of handsome appearance and remarkable adventures, the celebrated Manwa Sera, a dispossessed Unyamwezi chief. In the course of these wars Speke's principal friends amongst the Arabs were killed or disappeared. Amongst them was the celebrated Snay, the first Arab to enter Uganda, and in fact the first non-Negro to convey the news of the existence of Uganda to the civilised world. On the northwest trouble was threatened by the warlike country of Usui, whose chief, Suwarora, blocked the way to Karagwe by his extortions. To the west and north also the country was being raided by the Watuta, a mysterious race of warlike nomads who were said to be of Zulu origin, and were, accord-

[1] They meant, of course, the Rukuga, which flows through Marungu.

ing to all accounts, the furthest extension of the great Zulu invasion of East Africa, which took place in the first half of the nineteenth century.

Speke attempted to recruit porters in the northern parts of Unyamwezi, but without success. He therefore returned to the headquarters of the Arabs at Kaze, and from this point sent back the last of the Hottentots to the coast. Speke, seeing that he could get no farther without bringing some order into the country, negotiated a peace beween Manwa Sera and the Arabs. The peace with Manwa Sera broke down. Finally Speke decided to leave Bombay and Grant behind in northern Unyamwezi with the loads which it was impossible to transport. With such porters as he had he pushed on to the northwest and entered Buzinza, the first country ruled by Bahima chiefs.[1] Speke remarks rightly that specimens of this Hamitic (Gala) aristocracy extend from the south shores of the Victoria Nyanza southwards as far as the Fipa country and the edges of the Nyasa-Tanganyika Plateau. On pages 128 to 134 of his book[2] Speke gives an excellent description of the maddening extortions of a petty African chief. This behaviour on the chief's part should be borne in mind when the armchair geographer is inclined to lay all the blame on the European and Arab for commencing wars with Negro tribes.

From February to October Speke had the most

[1] Hima or Huma is the commonest name applied locally to the Gala aristocracy in East Equatorial Africa.

[2] Journal of the Discovery of the Sources of the Nile.

trying experiences which were to await him on this journey. He travelled backwards and forwards from Kaze to Uzinza, endeavouring in all possible ways to get porters to carry him to Usui. In these journeys he caught a severe cold, the effects of which lasted for months in a most distressing cough, and some disease of the chest which he could not diagnose. His caravans were robbed, though the goods were sometimes recovered. Several of his Swahili headmen turned traitors; Bombay alone was faithful. Grant, when he had recovered from fever, marched and countermarched. But Speke had fortunately managed months before to send on word of his coming to Suwarora, Chief of Usui, who himself was a vassal of Rumanika, the great Hima ruler of Karagwe. Suwarora sent an envoy with his mace to invite Speke to proceed at once to his court. This intervention made a good impression on the treacherous chief of Buzinza, Lumeresi. Much of the stolen property was recovered, and the expedition obtaining a few porters started for Usui in October, 1861.

Grant was left behind with such of the property as could not be removed. Speke, when he left Buzinza, "was a most miserable spectre in appearance, puffing and blowing at each step he took, with shoulders drooping and left arm hanging like a dead log, which he was unable to swing." At last, after incredible worries and trouble, occasioned by the demands for "hongo" (tribute) on the part of every petty chief whose territories they crossed, they reached the large country of

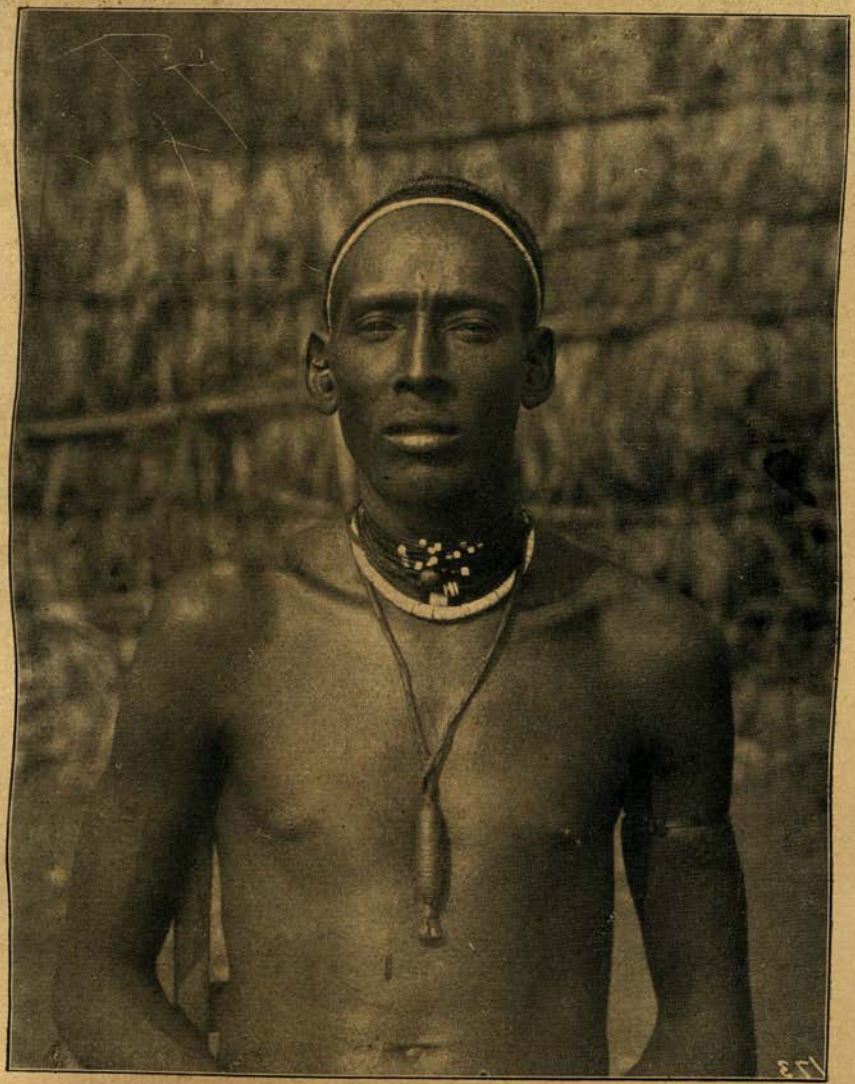
Usui or Busui at the southwest corner of the Victoria Nyanza. Usui is "a most convulsed looking country of well-rounded hills composed of sandstone. . . . Cattle were numerous, kept by the Wahuma (Bahima), who would not sell their milk to us because we ate fowls and a bean called *maharagwe*." In Usui the caravan was incessantly worried at night by the attacks of thieves until one of these was killed, whereupon the Basui congratulated the expedition, saying that the slain man was a wonderful magician. "They thought us wonderful men, possessed of supernatural powers." Suwarora and his fellow-chief Vikora were most exacting in their demands for hongo. At last, after heart-breaking delays, they got away out of Suwarora's country.

Between Usui and Karagwe was one of those no man's lands, which at times are such a relief to the harassed traveller, — a land in which he can enjoy the beauty of the landscapes, the excitement of sport in complete freedom from the harassing attentions of Negro tribes. In this lovely wilderness they were greeted by officers sent to their assistance by Rumanika, who said, "Rumanika has ordered us to bring you to his palace at once, and wherever you stop a day, the village officers are instructed to supply you with food at the King's expense; for there are no taxes gathered from strangers in the Kingdom of Karagwe." Speke noted the little lake of Urigi, and learned from the natives that this was the remains of a much larger sheet of water. They declared, in fact,

that this lake had formerly extended far to the southwards in the direction of Tanganyika, having been at one time a considerable gulf of the Victoria Nyanza.

For the first time since leaving the coast they travelled day after day through beautiful and attractive scenery, in which rhinoceroses, both "white" and black, and herds of hartebeest mingled with the splendid long-horned cattle of the natives. Speke and Grant shot several square-lipped "white" rhinoceroses. (Stanley subsequently did the same in this country of Karagwe. Though it has since been shot on the Upper Nile, this creature is now becoming extinct in East Equatorial Africa.) "Leaving the valley of Uthenja, we rose over the spur of Nyamwara, and found we had attained the delightful altitude of five thousand feet. Oh, how we enjoyed it! — every one feeling so happy at the prospect of meeting the good king Rumanika. Rumanika the king and his brother Nyanaji were both of them men of noble appearance and size. . . . They had fine oval faces, large eyes, and high noses, denoting the best blood of Abyssinia. Having shaken hands in true English style, which is the peculiar custom of the men of this country, the ever-smiling Rumanika begged us to be seated on the ground opposite to him, and at once wished to know what we thought of Karagwe, for it had struck him his mountains were the finest in the world; and the lake, too, did we not admire it?"

Speke subsequently went to see the queens and



[*Face page* 144.

A Hima of Mpororo, near Karagwe.

princesses of this royal family, who, by means of a milk diet, were kept immoderately fat. Of one of them he writes: "She could not rise; and so large were her arms that between the joints the flesh hung down like large, stuffed puddings. Then in came their children, all models of the Abyssinian type of beauty, and as polite in their manners as thoroughbred gentlemen."

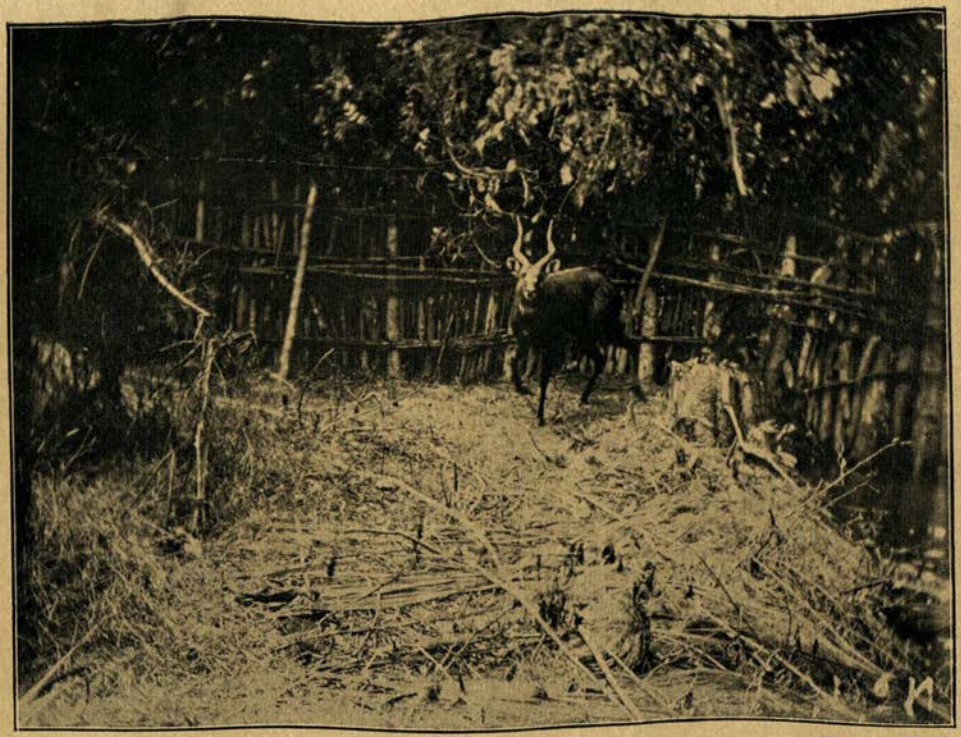
Rumanika and his brothers received their presents with a graceful gratitude which was striking after the ill manners of the Negro chiefs in Unyamwezi and Usui. Rumanika begged Speke to remain a little while in his country so that he might send on word of his coming to the King of Uganda. Speke consented to do so, and when walking about the vicinity of the king's capital, descried the distant cone of Mfumbiro. This he at once identified with the Mountains of the Moon and with the story of the snow-capped peaks. It is curious, seeing how friendly were all the Bahima, and what facilities were given to him for travelling about the country of Karagwe, that he made no attempt to enter Ruanda whilst waiting to go on to the north, and thus obtain a nearer acquaintance with the Mountains of the Moon. Had he done so, he might perchance have caught a glimpse of Ruwenzori. Grant's drawing of Mfumbiro and other volcanoes (since explored by many travellers) is a truthful one.

In Rumanika's country Speke discovered the water tragelaph which now bears his name (*Limnotragus*

spekci). This creature has the hoofs very much prolonged, so as to enable it to walk on floating vegetation and marshy ground. Speke at once discerned that this creature was closely allied to the water tragelaph found by Livingstone on Lake Ngami.

The existence of this Bahima[1] aristocracy in the countries west and south of the Victoria Nyanza was not reported for the first time in Speke's account of his second journey to the Victoria Nyanza. First of all, in the early fifties, the Zanzibar Arabs brought to the coast — either at Mombasa or Zanzibar — accounts of a race of "white" men who lived on the Mountains of the Moon. Burton, analysing these stories at Kaze in Unyamwezi, reduced them to accounts of Bahima, who were believed to have the features and complexion of Abyssinians. Speke's rival in Buzinza and Karagwe made us partially acquainted with the facts. We now know that at some relatively remote period not less than two thousand years ago the lands between the Victoria and Albert Nyanzas were invaded from the northeast by a Caucasian race allied to the Gala and the Egyptian. These ancestors of the Bahima mingled to some extent with the indigenous Negroes, and so somewhat darkened the colour of their skins and acquired hair more like the Negro's wool. This pastoral people brought with them herds of cattle from the direction of Abyssinia

[1] Throughout the writings of Burton, Speke, and Stanley, this race is called Wahuma. The most common term, however, by which they are known and know themselves is Bahima (*hima* being the root and *Ba-* the plural prefix).



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SPEKE'S TRAGELAPH (*Limnotragus spekei*).

or Galaland, — cattle with enormous horns, sometimes over three feet in length. This breed of cattle is found at the present day in southern and western Abyssinia. It is also depicted — with other breeds — on the Egyptian monuments. It is supposed to be allied in origin to the stock which gave rise to the ordinary humped cattle of India, — the Zebu type. These oxen with enormous horns — horns which are not only very long but sometimes very large in girth — are found westwards as far as the vicinity of Lake Chad, and in a more degenerate type farther west still, to the sources of the Niger. It might be thought that they were also related to the long-horned cattle of South Africa, but it is sometimes asserted that the long-horned South African cattle owe their main origin to the introduction of Spanish breeds by the Portuguese, the cattle met with by the first Europeans in South Africa having belonged to the humped zebu type.

The Bahima once founded an empire which stretched from the northern limits of Unyoro and the Victoria Nile westward to the Congo Forest and southward to the coast of Tanganyika. This ancient Empire of Kitara split up into a number of states governed for the most part by Hima dynasties, though in Uganda the native kings became more and more Negro in aspect through their fathers' intermarriage with Negro women. But for the most part friendly relations subsisted between all the states into which the Empire of Kitara was subdivided; it was only in more recent times that the existing blood feud sprang up between

Unyoro and Uganda. The Bahima were reverenced and admired by the mass of the Negro population as the descendants of supernatural beings who had brought to these lands what little civilisation they possessed. Intermarriage constantly took place between the dynasties of Buzinza, Usui, Karagwe, Ruanda, Mpororo, Ankole, Unyoro, and Uganda. This and other causes for intercommunication gave intelligent chiefs like Rumanika a considerable grasp of African geography. These chiefs knew that their world was bounded on the west by the impenetrable Congo Forest. They knew all about Tanganyika, the Victoria Nyanza, the Masai countries, the course of the Nile as far north as Gondokoro, and even the existence of Lake Rudolf. Perhaps also they had a glimmering knowledge not only of the "Turks" on the White Nile (which was the case), but also of the existence of men like themselves in Galaland and Abyssinia. Speke and subsequent travellers found these Hima sovereigns and their courts very different to the petty Negro states of East Africa. Besides the recognised king (a member of a long dynasty), there were regularly established Court officials and functionaries, and an orderly system of government. Travellers like Speke were not slow to appreciate the influence which this Gala invasion of equatorial Africa had on the Negro types. We now begin to feel that this Negrified Caucasian has interpenetrated most parts of Negro Africa between the Cameroons and Zanzibar, and between the northern limits of the Sudan and Natal. In the western pro-

longation of Africa something like the same infiltration of a superior race has been brought about by the Tawareqs of the Sahara. This Libyan race is also of the Caucasian family, more directly so indeed than the curly-haired Gala, who, mixing with the Libyan, laid the foundation of Ancient Egyptian civilisation.

CHAPTER XIII

SPEKE IN UGANDA

SPEKE and Grant both seem to have taken the shape and existence of the Victoria Nyanza for granted. No doubt from the highlands of Karagwe and Buddu they occasionally caught glimpses of the distant Nyanza; besides which the chiefs and the Arabs spoke of its existence as a fact which could be ascertained by one or two days' journey to the east. Speke was more concerned himself with losing no time in getting to the point at which the Nile left the Victoria Nyanza. He made little or no attempt to delineate the coast line of that lake with any accuracy, and as we know, he placed the west coast much too far to the east, reducing the lake to almost two-thirds of its actual area. Seeing how near he marched to the coast in Buddu, it is curious that he got no sight of the large archipelago of the Sese Islands,[1] which can be sighted from a distance of many miles. There is no indication of these islands on his map. Apparently he made no attempts to check his computation of the altitude of the Victoria Nyanza, which

[1] This is the more curious because, on page 276 in the "Discovery of the Source of the Nile," Speke writes of "a long range of view of the lake, and of the large island or group of islands called Sese, where the king of Uganda keeps one of his fleets."

THE RIPON FALLS FROM THE WEST BANK.

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in 1858 he computed at 3740 feet (an estimate not far off the correct one of 3775 feet). All the other altitudes taken by his boiling-point thermometer seem to be too low. His surmise that the Ripon Falls are only 3308 feet above sea-level is more than four hundred feet too low; and if his altitudes in northern Unyamwezi are correct (which I doubt), the waters of the Victoria Nyanza must be a huge, pent-up dam which would flood large tracts of German East Africa.

Grant had to be left behind in Karagwe, owing to an ulcerated leg. Speke decided upon going to Uganda alone, but despatched the head-man of his caravan, Baraka, with a companion to the north of Unyoro, providing him with a letter to Petherick. He himself entered Uganda (first of all Europeans to do so) on the 16th of January, 1862. He travelled along the coast country of Buddu, and soon began to appreciate the beauty of the land.

"I felt inclined to stop here a month, everything was so very pleasant. The temperature was perfect. The roads, as indeed they were everywhere, were as broad as our coach roads, cut through the long grasses, straight over the hills and down through the woods in the dells, — a strange contrast to the wretched tracks in all adjacent countries. The huts were kept so clean and so neat, not a fault could be found with them; the gardens the same. Wherever I strolled I saw nothing but richness, and what ought to be wealth. The whole land was a picture of quiescent beauty, with a boundless sea in the background. Looking over the hills, it struck the fancy at once that at

one period the whole land must have been at a uniform level with their present tops, but that, by the constant denudation it was subjected to by the frequent rains, it had been cut down and sloped into those beautiful hills and dales which now so much please the eye; for there were none of those quartz dykes I had seen protruding through the same kind of aqueous formations in Usui and Karagwe, nor were there any other sorts of volcanic disturbance to distort the quiet aspect of the scene."

Speke found an Uganda not much smaller in area than that Negro kingdom is to-day. It lacked the large slices of Unyoro which were cut off and added to Uganda after the commencement of the British Protectorate, but it probably wielded a political influence over Busoga on the east and Toro on the west, since denied to it. The population of this kingdom in those days was computed at not far under four millions. Its administrators at the present time are doubtful if the same kingdom possesses eight hundred thousand inhabitants. The roads then were as broad and as well kept as they are now. It is sad to think that the people were possibly happier. True, their despotic ruler — whom they regarded with almost religious veneration — slaughtered and tortured those who frequented his Court; but the people at large were little affected by these deeds of cruelty, even if they did not regard them with that disinterested admiration which the Negro always accords to a display of force. Syphilis had wrought but slight ravages amongst them; indeed, it was a disease of but recent

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A View in Uganda.

introduction (coming from the Nile).[1] No religious feuds had begun. The people believed their monarch to be the mightiest on earth, and themselves to be the happiest folk, living in a real paradise. For beauty the land can hardly be matched elsewhere in Africa. The one indisputable flaw in the climate is the frequency of dangerous thunderstorms. But for these reminders of a harsher law the Baganda might well have looked back on their life under Mutesa and his predecessors as one of ideal happiness. They had plenty to eat. Their banana groves provided the staple of their diet unfailingly. In addition, the rich soil grew such legumens and cereals as they required. The rivers, lakes, and marshes swarmed with fish. Cattle throve. Goats, sheep, and fowls were abundant. Bark cloth from the fig-trees and carefully dressed skins provided the clothing they were so scrupulous to wear; for they shuddered at open indecency, and yet led the most licentious lives, licentiousness then paying no penalty in the spread of malignant diseases. This would be the way in which the average Muganda might look back on the past. Of course there was another side to the picture, no doubt. The paradisaical, unmoral lives of easy indulgence in their banana groves ill fitted them in the long run to cope with the attacks of stronger races.

[1] According to the traditions of the natives, syphilis and smallpox entered Uganda about the same time, and came originally from Unyoro. Unyoro received these plagues from the first Nubian slave- and ivory-trading caravans, which were the pioneers of Egyptian rule in the forties of the last century. Syphilis and smallpox were also brought by the Zanzibar trading caravans from Unyamwezi not many years later.

Fate led them under the British ægis after the country had been brought to something like ruin by ten years of civil war, and ten years of wretched misgovernment at the hands of a wicked sovereign. Had the British Protectorate not been declared, it is futile to suppose the country could have retained its independence. It would have been annexed by Germany or France, have been added to the Congo Free State or to the Egyptian Sudan.[1] If by some miracle it had escaped any one of these masters, it would have fallen victim later on to the Abyssinian raiders of the present day.

Speke found the country governed by a worshipped despot, Mutesa, who had just succeeded to a throne which had been in existence for something like four hundred and fifty years in an unbroken dynasty originally of Hima origin. This despot was a young man of agreeable countenance, with somewhat negroid features but a yellowish-brown skin. He had the large, liquid eyes characteristic of all the princes and princesses of this family. He lived in palaces which, though built of palm trunks, reeds, and grass were often imposing in appearance, with roofs rising to fifty feet above the ground. The interior of these dwellings had a raised floor of mud, hard as cement, and was divided into compartments by reed screens. The floor would be strewn with a soft carpet of fine fragrant grass, on which leopard skins and beautifully

[1] This, indeed, long before the British Protectorate, Gordon Pasha meditated, and was only restrained therefrom by the intervention of Sir John Kirk.

dressed ox-hides were laid down. The towns consisted mainly of collections of these straw-thatched dwellings surrounded by large gardens and banana groves, and fenced off from the outer world by tall reed fences so plaited as to produce an agreeably variegated aspect. Speke and his companion, and the Swahili porters with them, noticed the resemblance offered by this beautifully "tidy" country of Uganda to the civilised coast belt of Zanzibar. Negro savagery was far removed, especially in sanitary matters, where the arrangements were quite equal to those in force in England one hundred years ago. The religion of the country consisted of a worship paid to a large number of Ba-lubari or spirits, some of which were obviously ancestral, and others the personification of earth, air, or water forces.[1] The ministers of this religion were the Ba-mandwa or sorcerer-priests. Originally these priests were of the Bahima stock. Indeed, this religion which prevails amongst so many tribes in western and equatorial Africa seems to have had (like the Bahima aristocracy) a Hamitic origin, and to have come originally from the regions east of the White Nile.

Mutesa's Court was remarkable for its hierarchy of officials. The principal minister is now the Katikiro, but was formerly styled Kamuraviona. He was for-

[1] It is a question whether all these spirits were not in origin deified chiefs or medicine-men, who after death were supposed to become controllers of the lake, of the rain supply, of certain diseases, or of certain functions. Speke considers that a small element of phallic worship was mixed up with the old Uganda religion.

merly the commander-in-chief, though now no longer associated with such office. Some functions were hereditary, such as the Pokino or Governor of Buddu; but these hereditary posts were formerly the recognition of the existence of feudatory princes. The Kimbugwe was formerly the guardian of the king's navel string and the keeper of his drums. The Mugema was the commissioner in charge of the royal tombs; Kasuju was the guardian of the king's sisters; Mukwenda was his treasurer; Kauta was the steward of his kitchen; Seruti his head brewer; and so forth. In course of time many of these functions were purely honorary. The system seems to have come, like so much else of the civilisation of Uganda, from the Hamitic invaders, and it bears a curious resemblance to the origin of similar functionaries in the courts of Europe.

Society also was divided much as it is in our own world. There were the Royal Family and its collateral branches, known as Balángira, or princes. The princesses were called Bambeja. The Baronage was styled Bakungu. Then there was an upper class of functionaries known as Batongoli, while the peasants were classed as Bakopi.

Speke — handsome, manly, kindly, and straightforward — became an immense favourite with the volatile tyrant of Uganda, with the queens (for there were several queens — dowagers, mothers, consorts — at once in Uganda), with the nobles, and with the people. "My beard," he writes, "engrossed the

major part of most conversations; all the Baganda said they would come out in future with hairy faces." The Royal Family of Uganda, he also remarks, gave orders without knowing how they were to be carried out, and treated all practical arrangements as trifling details not worth their attention; so that Speke and his caravan sometimes found themselves not very well off for food. The king or the queen-mother had said, "Let them be fed," but ministers were not equally eager to see the royal largesse awarded. The handsome young king was extremely trying to deal with, as he put a great many questions and seldom waited for the answers. His slavish courtiers were constantly on their bellies, uttering incessant expressions of "Thank you very much" ("Niyanzi-ge") for whatever their chief was pleased to do, say, or show to them. Not infrequently Speke intervened to save the lives of queens or pages who for a nothing were condemned to a cruel execution. On one occasion a picnic on the shores of the Victoria Nyanza was attended by the following incident. One of Mutesa's wives, —

"a most charming creature, and truly one of the best of the lot, plucked a fruit and offered it to the king, thinking, doubtless, to please him greatly; but he, like a madman, flew into a towering passion, said it was the first time a woman had ever had the impudence to offer him anything, and ordered the pages to seize, bind, and lead her off to execution. These words were no sooner uttered by the king than the whole bevy of pages slipped their cord turbans from their heads, and rushed like a pack of cupid beagles upon the fairy queen, who, indignant at

the little urchins daring to touch her majesty, remonstrated with the king, and tried to beat them off like flies, but was soon captured, overcome, and dragged away, crying on the names of the Kamuraviona and 'Mzungu' (myself) for help and protection; whilst Lubuga, the pet sister, and all the other women clasped the king by his legs, and kneeling, implored forgiveness for their sister. The more they craved for mercy, the more brutal he became, till at last he took a heavy stick and began to belabour the poor victim on the head. Hitherto I had been extremely careful not to interfere with any of the king's acts of arbitrary cruelty, knowing that such interference, at an early stage, would produce more harm than good. This last act of barbarism, however, was too much for my English blood to stand; and as I heard my name, 'Mzungu,'[1] imploringly pronounced, I rushed at the king, and staying his uplifted arm, demanded from him the woman's life. Of course I ran imminent risk of losing my own in thus thwarting the capricious tyrant; but his caprice proved the friend of both. The novelty of interference even made him smile, and the woman was instantly released."

Speke had quitted Grant in January, 1862. The two travellers did not meet again till the end of May in the same year. Grant had been constantly ill, and had been unable to make any survey of the lake shore. It was not till the 7th of July that Speke and Grant obtained leave to quit the capricious king on their journey eastwards to the Nile. The day before they started Speke notes:—

"On the way home one of the king's favourite women overtook us, walking, with her hands behind her head, to

[1] Muzungu, i.e., "White-man."

execution, crying 'Nyawo' in the most pitiful manner. A man was preceding her, but did not touch her; for she loved to obey the orders of her king voluntarily, and in consequence of previous attachment was permitted as a mark of distinction to walk free. Wondrous world! It was not ten minutes since we parted from the king, yet he had found time to transact this bloody piece of business."

On the following morning the king replied to Speke's farewell remarks "with great feeling and good taste." The king followed him with his courtiers in a procession to his camp, and exhorted the porters to follow the travellers through fire and water. "Then, exchanging adieus again, he walked ahead in gigantic strides up the hill, the pretty favourite of his harem, Lubuga, beckoning and waving with her little hands, and crying, 'Bana! Bana!'[1] All showed little feeling at the severance. We saw them no more."

[1] This word is really a mis-hearing on Speke's part for Bwana, which, is a corruption of Abuna, the Arab word for "our father." Bwana the respectful term, meaning "master," which is applied in the Swahili language to all persons of superior position. It was the name by which Speke was known throughout his stay in Uganda, though it has long since been discarded for "Sapiki."

CHAPTER XIV

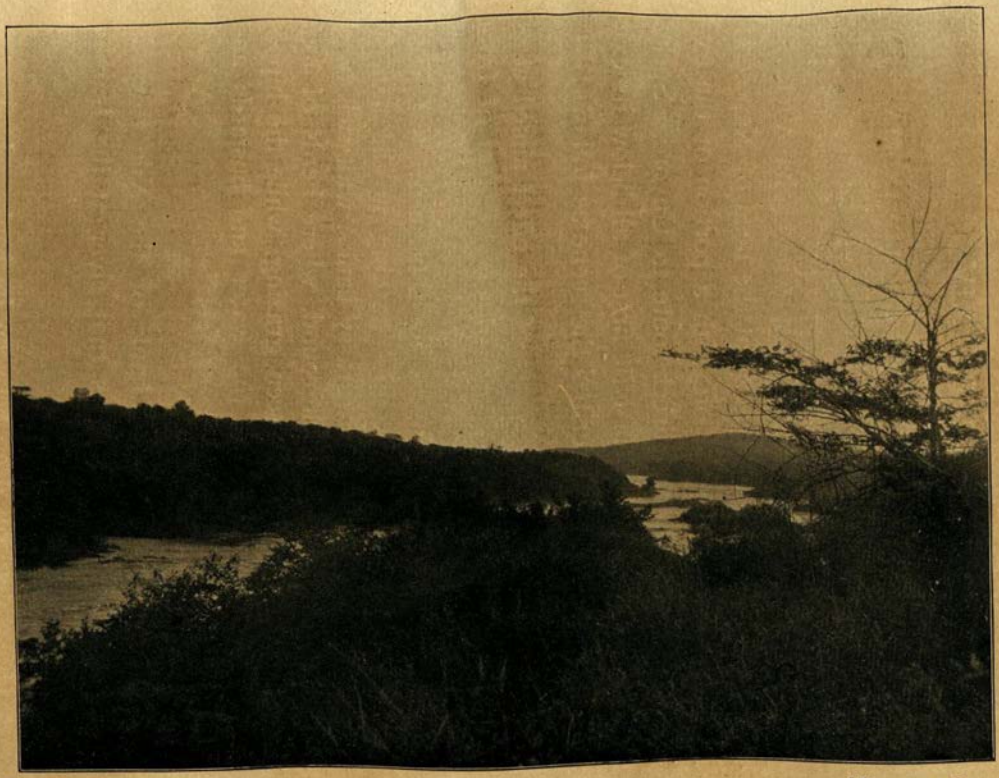
FROM VICTORIA NYANZA TO ALEXANDRIA

ON the 28th of July, 1862, Speke stood by the side of the Ripon Falls, where the Victoria Nile leaves the great Nyanza at the head of Napoleon Gulf. Grant had gone off with a portion of the expedition on the more direct route to Unyoro. Speke had reached the Victoria Nile first of all below its exit from the lake, and describes the scene as follows: —

"It was the very perfection of the effect aimed at in a highly kept park, with a magnificent stream of from six to seven hundred yards wide, dotted with islets a rocks, — the former occupied by fishermen's huts, t latter by birds and crocodiles basking in the sun, flowing between fine, high grassy banks, with rich tre and plantains in the background, where herds of co and hartebeest could be seen grazing, while th hipp potami were snorting in the water and bustards a guineafowl were rising at our feet."

Marching up the left bank of the Nile towar the lake, he thus describes that river at the Isam rapids: —

"The water ran deep between its banks, which we covered with fine grass, soft cloudy acacia, and festo of lilac convolvuli, whilst here and there, where the la



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THE NILE AT THE ISAMBA RAPIDS (looking North).
Where Speke first struck it.

had slipped above the rapids, bared spaces of red earth could be seen, like that of Devonshire; there, too, the waters, impeded by a natural dam, seemed like a huge mill pond, sullen and dark, in which two crocodiles, lying [illegible]ut, were looking out for prey. From the high banks [illegible]ooked down upon a line of sloping wooded islets [illegible]ng across the stream, which divide its waters, and, by [illegible]errupting them, cause at once both dam and rapids. [illegible]e whole was more fairy-like, wild, and romantic than [illegible]- I must confess that my thoughts took that shape — [illegible]nything I ever saw outside of a theatre. It was exactly [illegible]e sort of place, in fact, where, bridged across from one [illegible]de-slip to the other, on a moonlight night, brigands [illegible]ould assemble to enact some dreadful tragedy. Even [illegible]e Wangwana (Zanzibaris) seemed spellbound at the [illegible]ovel beauty of the sight, and no one thought of moving [illegible]ill hunger warned us that night was setting in, and we [illegible]ad better look out for lodgings."

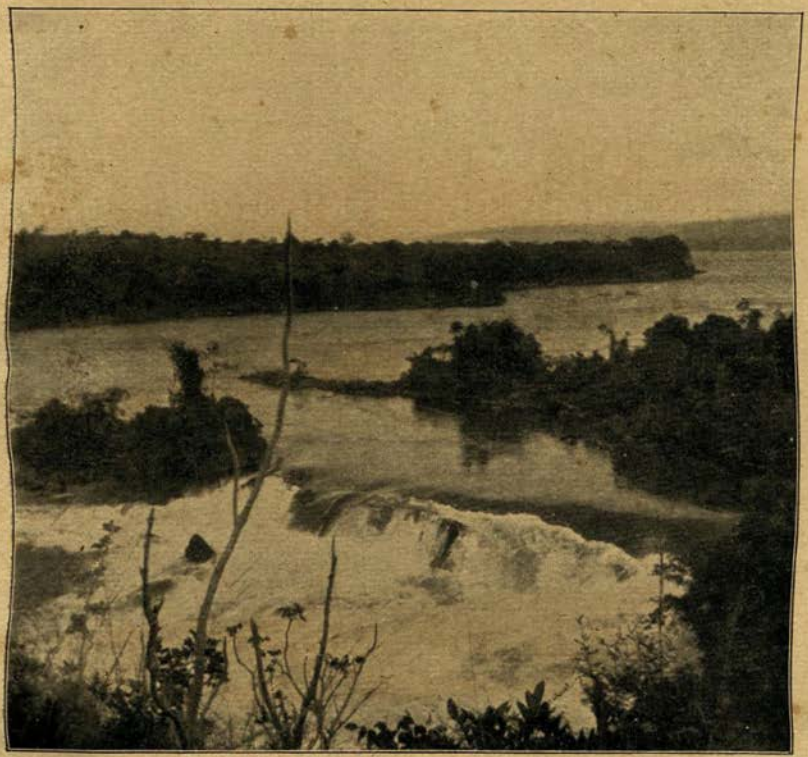
Speke describes the Ripon Falls, where the Nile [illegible]eaves the lake, as by far the most interesting sight [illegible] had ever seen in Africa. The falls are stemmed [illegible] crowned by magnificent trees.[1]

[illegible]one to it for hours, — the

in the folds, and gardens on the lower slopes, — as interesting a picture as one could wish to see."

This was Speke's furthest point eastward in connection with Nile discovery. He confesses in his book that he has missed much by not going through Busoga to see the northeast corner of the lake. If he done so, he might have cleared up at the very beginning the most disputed portion of that lake's geography. At the northeast corner of the Victoria Nyanza is a long and narrow gulf which we now term Kavirondo Bay. This gulf figures on Speke's map as a semi-independent Lake Baringo. Stanley, in his circumnavigation, wholly overlooked it, as its mouth is blocked by islands. Joseph Thompson read a quarter of the riddle. One-half was guessed by Mr. C. W. Hobley, and the remaining quarter was cleared up by an expedition under Commander Whitehouse.

These falls of the Nile were named after the Earl de Grey and Ripon, then President of the Royal Geographical Society; and the [illegible] Nyanza, from which the [illegible] leon Ch[illegible]



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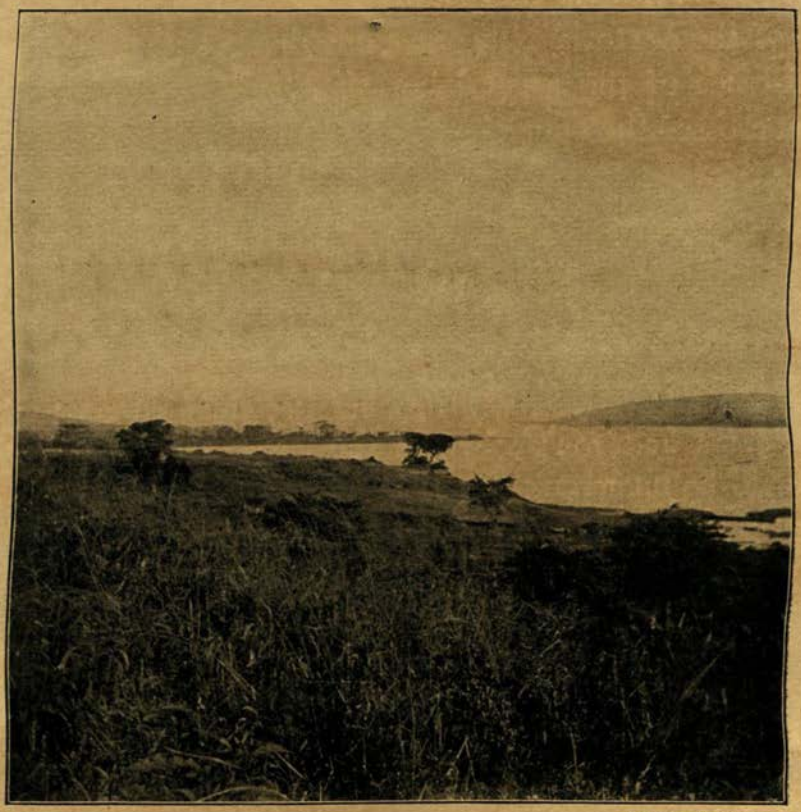
RIPON FALLS, FROM BUGUNGA, WHERE SPEKE FIRST SAW THEM.



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VIEW OF NAPOLEON GULF, FROM JINJA.

give up the river route. Speke struck inland to the waters of the Luajali, which he wrongly believed to be another outlet of the Victoria Nyanza, and shortly afterwards met Grant, who was on his return journey from the capital of Unyoro. After some hesitation they decided to join forces and march on Unyoro overland. By this means they entirely lost count of the course of the Victoria Nile for some distance, and of the existence of the great lakes Kioga and Kwania. As they crossed the boundary line and entered Unyoro, Speke writes: —

"This first march was a picture of all the country to its capital: an interminable forest of small trees, bush, and tall grass, with scanty villages, low huts, and dirty-looking people clad in skins; the plantain, sweet potato, sesamum, and ulezi (millet) forming the chief edibles, besides goats and fowls; whilst the cows, which are reported to be numerous, were kept, as everywhere else where pasture-lands are good, by the wandering, unsociable Wahuma, and were seldom seen. No hills, except a few scattered cones, disturb the level surface of the land, and no pretty views ever cheer the eye. Uganda is now entirely left behind; we shall not see its like again; for the further one leaves the equator, and the rain-attracting influences of the Mountains of the Moon, vegetation decreases proportionately with the distance."

Speke had sent on, many months in advance, his head-man, Baraka, to await him in Unyoro, and possibly to convey letters to Petherick. But for this action in all probability a peaceful entry into Unyoro would have been refused, as the Baganda were much

detested there for their predatory raids. Kamurasi, King of Unyoro, was very nearly as big a scoundrel and as inhospitable to strangers as his son Kabarega, who is now residing in the Seychelles Islands. After innumerable difficulties caused by the caprices of Mutesa and the jealousies subsisting between the Baganda and Banyoro, and the fierce suspicions of Kamurasi, they reached the capital of that monarch who considered himself to be the legitimate emperor over all the lands once ruled by the Bahima race. This capital was situated then on a peninsula between the Kafu River and the Nile, on what is now the soil of Uganda. The Kafu River, which is a broad, marshy stream rising not far from the Albert Nyanza, is the present boundary between the two kingdoms. Speke wrongly believed it to be another outlet of the Nile.

For nine days Speke and his companion were kept waiting before the suspicious king could make up his mind to see them. From the 9th of September to the 9th of November the whole expedition was detained at the Court of this greedy tyrant. At his Court they heard of the existence of a large lake, "Lutanzige," to the west,[1] and asked permission to go and see it. This was refused, and thus another opportunity of adding an important piece of information to Nile discovery was denied to Speke, who could have travelled to and from the coast of Lake Albert in three weeks instead of wasting two months at Kamurasi's Court. However, during this long stay Speke managed to send

[1] Albert Nyanza.

Bombay with some of Kamurasi's men down the Nile and through the Lango and Acholi countries to Petherick's outpost. After Bombay's return with this cheering news, Speke was more than ever impatient to get away. Kamurasi attempted to delay the departure under one pretext or another, no doubt with the object of bleeding the expedition of more and more gifts. At last, on the 9th of November, they descended the Kafu River to its junction with the Nile, and found themselves on the broad Nile, still lake-like in extent, owing to the vicinity of Lake Kioga. In this manner, some travelling by canoe and some by land, they reached the Karuma Falls, from which point they left the Nile, marching across the marshy and then steppe-like countries of the Acholi, and came first into touch with the influence of Egypt at Faloro, on the borders of the Madi country. Here they met a Sudanese named Muhammad Wad-el-Mek, — quite black, but dressed like an Egyptian and talking Arabic. Muhammad was in command of some two hundred Sudanese, who, by their association with Egypt, were known as Turks by the natives. Muhammad Wad-el-Mek at first professed to be Petherick's employé, and then confessed that he was really the head-man of a Maltese trader named De Bono. These were the men that Petherick had arranged with De Bono were to come into touch with Speke's expedition.

Here, however, they met with some disappointment. Instead of being allowed to proceed directly

to Gondokoro, Muhammad Wad-el-Mek sought to detain them by alleging that no boats would be waiting for them at Gondokoro at that season (December). The usual heart-breaking delays took place. Speke decided from this point (Faloro) to send back Kijwiga, — a fairly faithful Unyoro guide, who had been with him now, one way and the other, about a year, having originally been sent to greet him in Uganda. Meantime Muhammad, De Bono's agent, went off to the southward with his men to fight one African chief on behalf of another so as to secure a large quantity of ivory.

Speke was shocked, during his stay in Unyoro, at the abominable way in which the "Turks" treated the inoffensive Madi natives. At last, on the 12th of January, 1863, Speke, disgusted and hopeless at the delay, started ahead to a village called Panyoro. He was followed up by Muhammad's men, and they arrived at the Nile near the modern station of Afuddu (close to the junction of the river Asua and the Nile). At this place they found a tree with the letters M. I. inscribed on its bark. This was the remains of an attempt on the part of the Venetian traveller Miani to carve his name on a tree so as to give some information to Speke, who had long been expected in this direction. At this place there was another halt, which Speke and Grant employed in killing game, and giving a great deal of the meat thus acquired to the natives.

On the first of February they started again, Muhammad having procured porters by the most arbitrary

methods. They followed the Nile down to the confluence of the Asua River. This stream Speke imagined to flow out of what we now call Kavirondo Bay. It is strange that so great a geographer should have had such elementary notions about hydrography. He gives the Victoria Nyanza something like four principal outlets, much as the Portuguese in earlier days provided lakes in the centre of Africa which fed impartially the Congo, the Nile, and the Zambezi. Crossing the Asua, they emerged along the Nile rapids until they arrived at the verge of the Bari country. One serious attack was made on them, but was met by the determined measures taken by Muhammad.

At last, on the 15th of February, 1863, they walked into Gondokoro. Here their first inquiry was for Petherick. "A mysterious silence ensued; we were informed that Mr. De Bono was the man we had to thank for the assistance we had received in coming from Madi." Hurrying down through the ruins of the abandoned Austrian Mission to the bank of the river, where a line of vessels was moored, the explorers suddenly saw Mr. Samuel Baker marching towards them. "What joy this was I cannot tell. We could not talk fast enough, so overwhelmed were we both to meet again." [1]

Mr. Samuel Baker had conceived the idea of going to meet Speke at the head waters of the Nile. He and his wife (the present Lady Baker) arrived at Khartum, and there received much information and assist-

[1] Speke and Baker had met before in India

ance from Petherick in the furtherance of their work. As to Petherick himself, he arrived with his wife also a few days after Speke reached Gondokoro. Speke seems to have been rather hard on this man. We know that Petherick went up the river to Gondokoro in 1862, expecting to get news of Speke, and not imagining that he could have lost something like a year of travel by his delays in Unyamwezi, Uganda, and Unyoro. Being unable to remain indefinitely at Gondokoro without news of the travellers, he arranged with De Bono to send Muhammad and his men in the direction of Unyoro to found a post where Speke might be awaited. As we know, these orders were carried out. Petherick was naturally obliged to think of his own means of livelihood, for he was an unpaid consul. He therefore went on an ivory-trading expedition west of the Mountain Nile, knowing, of course, that Baker would be awaiting the travellers, and that runners from the direction of Gondokoro would keep him advised as to their approach. He and his wife reached Gondokoro only a few days after Speke had arrived there. Speke, however, refused all assistance at their hands, and decided to return to Khartum on Baker's dahabiah. Speke's adverse report on Petherick, combined with the intrigues of the Turks, who disliked his opposition to the slave-trade, practically ruined Petherick, as we have seen in a previous chapter.

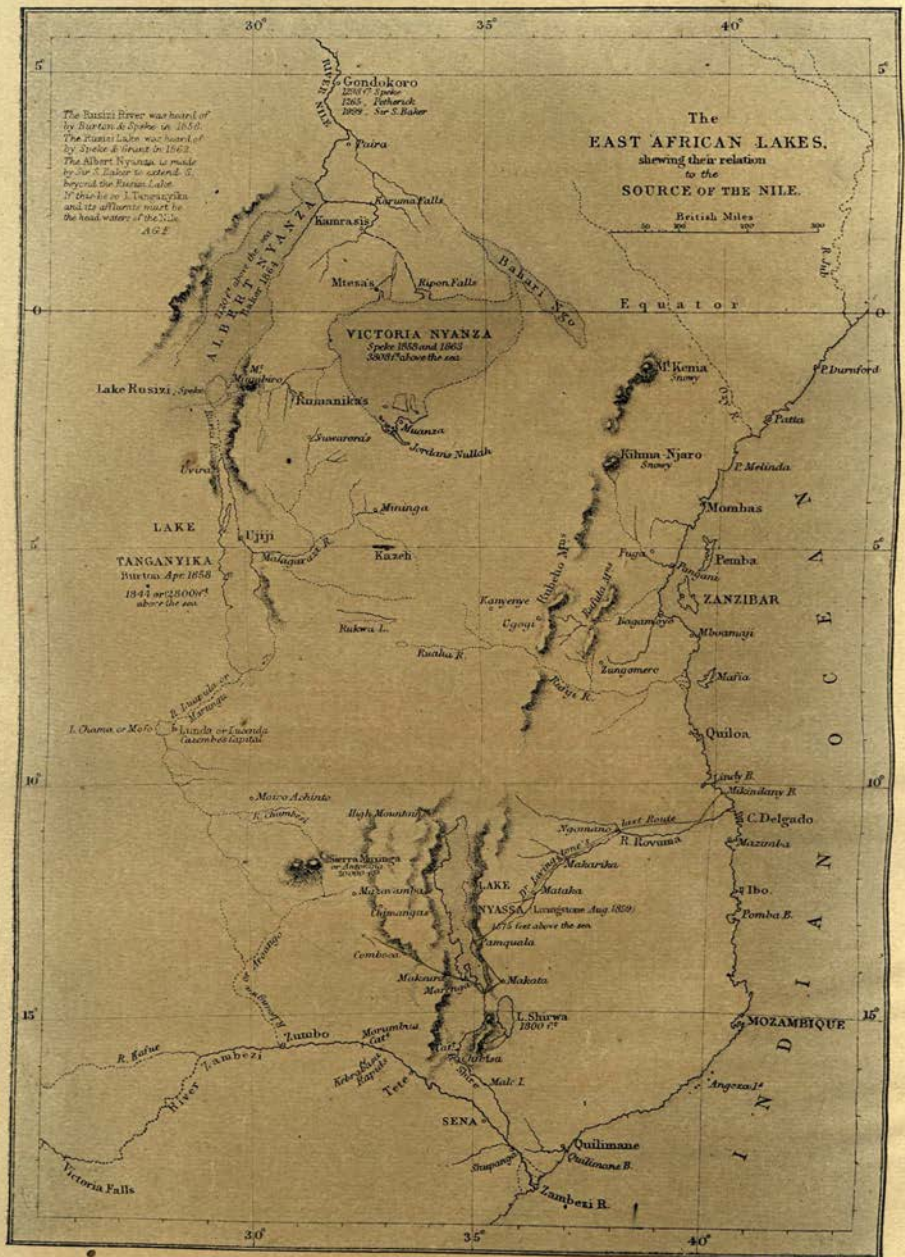
The journey of this wonderful expedition from Gondokoro down the Nile (Speke mistaking the origin and

course of its affluents as he went along, so that his map in this respect is very incorrect) was broken at Khartum, whence the Europeans and Negroes travelled across the desert to Egypt. Of the hundred-odd porters who left Zanzibar with this expedition in 1860, nineteen (including Bombay) reached Cairo with Speke and Grant, the remainder having deserted, died, or been sent back from various points. These survivors were generously treated by Speke, who gave them an extra year's pay as a gratuity, and orders for land and marriage portions on their reaching Zanzibar. He also provided for their free passage from Suez to Zanzibar via the Seychelles Islands. Somehow or other they went on by mistake to Mauritius, where they were treated most generously by the little colony. Thence they were sent in safety to Zanzibar. From this point several of these men subsequently journeyed with Stanley and other African explorers. Bombay, "Captain of the Faithful," died in 1886 (?), having been in receipt during the last years of his life of a regular pension from the Royal Geographical Society.

Speke and Grant returned to England in the spring of 1863. By December in that year Speke had finished his great book, the "Discovery of the Source of the Nile." Speke, soon after his return, was received by the present king. In the autumn of 1863 he was given an ovation in the county of Somerset worthy of his achievements. "Punch" accorded him a cartoon drawn by Tenniel, but the British government did *nothing* for him, unless there can be attributed to

its influence the paltry satisfaction of granting to him through the Heralds College supporters and an additional motto to his coat of arms. By this grant his family is now entitled to add a hippopotamus and a crocodile as supporters to their shield, a crocodile to their crest, the flowing Nile to their coat of arms, and the additional motto, "Honor est a Nilo."

Meantime Burton had become a British consul on the West Coast of Africa, and was returning to England in 1864. Speke had published articles in "Blackwood" and a book which, as already related, made uncomplimentary references to his former companion. The two great travellers were invited to meet at the British Association at Bath in 1864 and discuss their different views as to the Nile sources; for Burton, as a tit-for-tat, had published a work in collaboration with Petherick, in which he sought to prove that Speke's discovery of the Victoria Nyanza was unimportant. Taking advantage of the traveller's admission that he had touched but seldom the shores of this great lake, he denied its existence, and reduced it to a mere assemblage of pools and swamps. Speke, before quitting Baker at Gondokoro, had told him much of the Luta Nzige or Western Lake which had some connection with the Nile, and Baker (as will be subsequently set forth) had followed Speke's indications with success, and discovered and named the Albert Nyanza. His exaggeration of the length of this sheet of water had convinced Burton that Speke was altogether mistaken, and that he himself was



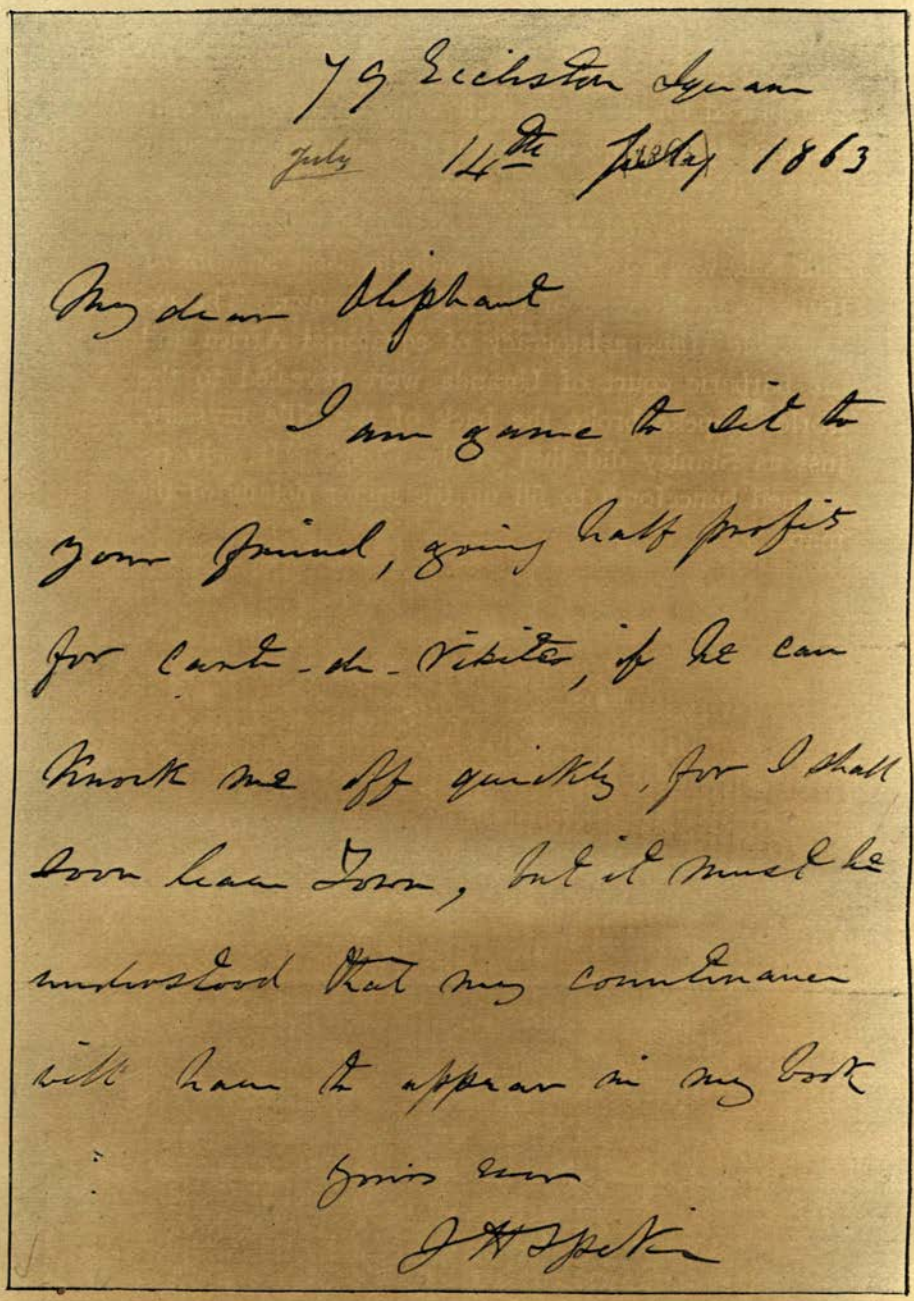
[*Face page* 171.

THE LAST MAP ISSUED TO ILLUSTRATE SPEKE'S THEORIES, 1865.

wrong in having earlier stated that the Rusizi River flowed into and not out of the north end of Tanganyika. (Neither Speke nor Burton actually saw the Rusizi.) Burton therefore turned the Rusizi into an effluent of Tanganyika, and made it a connection between that lake and the Albert Nyanza. Had he had any glimmerings of lakes Kivu, Albert Edward, and the Semliki, he would no doubt have been still more certain of his hypothesis. As it was, Speke's theories have been shown subsequently to have been very near the whole truth. The Victoria Nyanza is the main source of the Nile, though that river finds another reservoir in the great swampy lakes of Kioga and Kwania (which again receive much of the drainage of Mount Elgon), and a most important contribution from the Albert Nyanza; for this last lake is the receptacle of all the drainage of the Ruwenzori snow range. At the time, however, Speke's theory was not sufficiently supported by evidence, and was certainly open to attack, the more so because he had blundered by giving the Victoria Nyanza so many outlets. The two great men were to meet and discuss their differences, and every one knew that underneath a mere dispute on geographical theories lay deep-seated bitterness of feeling. It was said that Speke, who hated quarrelling, and perhaps felt some compunction as to the frankness of his remarks concerning Burton, looked forward to this public meeting with great dislike, the more so as he was a poor and unready public speaker. But the intended conference was never to

come off; on the 21st of September, 1864, Speke, whilst out partridge-shooting on his father's land at Jordans, near Ilminster, was scrambling over a stile with his gun at full-cock. It was just one of those little imprudences that even the wariest of African travellers commits when he returns to civilisation. Both barrels of the gun were discharged into his body, and he died within a few hours. The news was received by the British Association at Bath just as the meeting was about to commence, and as Burton was seated awaiting the arrival of his old comrade. This terrible event hushed the difference between them. Burton's wife, a gifted woman, who sometimes wrote very good poetry, inscribed some very beautiful lines to the memory of Speke.

We take leave here of one of the greatest of African explorers, the second greatest only, if Stanley is to be accounted the first. Only a man of extraordinary energy, determination, bravery, tact, and of iron constitution could have struggled through the difficulties which beset Speke on his route from Zanzibar to the Victoria Nyanza, and from the Victoria Nyanza to the navigable Nile. The purport of the expedition was wellnigh wrecked between Unyamwezi and the Victoria Nyanza; it ran many risks from the caprices of Mutesa; several times Kamurasi threatened it with failure in Unyoro; other dangers awaited it in the Madi and Bari countries, but it finally resulted in affording us the main solution of the Nile Quest. As the outcome of Speke's journey, the Victoria Nyanza



79 Eccleston Square

July 14th July 1863

My dear Oliphant

I am game to sit to your friend, going half profits for Carte-de-Visites, if he can knock me off quickly, for I shall soon leave Town, but it must be understood that my countenance will have to appear in my book

Yours ever

J H Speke

[Face page 173.

SPEKE'S HANDWRITING.
(Letter to Laurence Oliphant.)

was placed on the map with some approximate correctness as to shape and area; the shape and size of Lake Albert Nyanza were guessed at with extraordinary accuracy, and the course of the White and Mountain Nile was foreshadowed with the same amount of truth as in the case of the Albert Nyanza. The remarkable Hima aristocracy of equatorial Africa and the barbaric court of Uganda were revealed to the world. Speke broke the back of the Nile mystery, just as Stanley did that of the Congo. It only remained henceforth to fill up the minor details of the map.

CHAPTER XV

SAMUEL BAKER AND THE ALBERT NYANZA

SAMUEL WHITE BAKER was born in London on the 8th June, 1821, and was the second and eventually eldest son of Mr. Samuel Baker, a city merchant, who possessed large properties and sugar plantations in Jamaica and Mauritius. Samuel Baker, the elder, at one time maintained a small fleet of sailing vessels. He also became one of the first Directors of the Great Western Railway. His family and grandfather were mainly settled at Bristol, and were much connected with the navy in the eighteenth century. Further back still the Bakers were members of Parliament and Court officials. They came originally from London, then became a Kentish family, then moved to Dorsetshire, then to Bristol, and finally back again to London. Samuel Baker, the younger, was a typical English boy. His biographer, Mr. Douglas Murray, describes him as having been "of the Saxon type; a noble-looking boy, of very fair complexion, light hair, and fearless blue eyes." He was "enterprising, mischievous, for ever getting into scrapes, and leading others into them; but he was never known to tell a lie or do a mean thing." His

career was very nearly brought to a premature close when he was twelve years old by an attempt to make fireworks. He ignited a small heap of gunpowder on the kitchen table, and caused a terrible explosion, which blew [redacted] to the far end of the room and burnt his arm[redacted].

H[redacted] school, and received most of his education [redacted] a private tutor and by a residence at Frankfurt in Germany. His father attempted to put him in his London office; and this work, though excessively irksome, was endured for a time, as he had early fallen in love with the daughter of a Gloucestershire rector, whom he married when he was only twenty-two. Soon after his marriage he went out to Mauritius with his wife, to attempt the management of his father's estates in that island. But he was restless and dissatisfied with this career; moreover, his three children, born in three years, all died. He therefore started for Ceylon, to which island he was attracted by the stories of big-game shooting. His interest was excited in the splendid mountain region of the interior of Ceylon, which presents considerable areas for European occupations between six thousand and eight thousand feet in altitude. Here for nine years he worked at founding an English settlement of planters, which exists to this day in a flourishing condition, some of the land-owners being members of the Baker family. But his wife, who bore him many children, suffered greatly in health. In 1855 he returned to England, and wrote a book

on Ceylon. At the end of that year his wife died, and Baker, after leaving his young children to be brought up in England, started for Constantinople which he reached at the close of the Crimean [illegible]. His idea was to travel in Circassia, and [illegible] vance in that direction Russia was [illegible] India; but he spent several years in a [illegible] less fashion, shooting, fishing, and explorin[illegible] Minor and Turkey in Europe.

In 1859 he settled down as Manager-Genera[illegible] a British-made railway from the Danube to th[illegible] Black Sea. Whilst this railway was being made he met in Hungary the lady who became his second wife.[1] The railway was completed in 1860, and Baker once more became restless. Big-game shooting in Asia Minor — splendid as it seems to have been at that period, when he could shoot as many bears, boars, wolves, red deer, and roe deer as he wished — did not content him; his thoughts turned towards Africa and the Nile. He arrived at Cairo with Mrs. Baker in 1861, with the idea of travelling up the Nile to meet Speke and Grant coming from Zanziba[illegible] via the Victoria Nyanza.

But Baker resolved, before attempting anything so difficult as the exploration of the White Nile above Gondokoro, to learn something of African travel and Sudanese Arabic. He therefore left the main Nile at Berber and ascended the Atbara River, the last affluent which the Nile receives on its way to the Mediter-

[1] Florence Ninian von Sass. Lady Baker survives her husband.

Photo by Maull & Fox.] [*Face page* 177.

SAMUEL BAKER, 1865.

ranean;[1] the first running river encountered by the traveller ascending the Nile that can be said to flow through tropical Africa, — the Africa with the typical Ethiopian fauna and flora.

"After a scorching march of about twenty miles we arrived at the junction of the Atbara River with the Nile [writes Baker]; throughout the route the barren sand stretched to the horizon on the left, while on the right, within a mile of the Nile, the soil was sufficiently rich to support a certain amount of vegetation, chiefly dwarf mimosas and the *Asclepia gigantea*. . . . The Atbara has a curious appearance; in no part was it less than four hundred yards in width, while in many places this breadth was much exceeded. The banks were from twenty-five to thirty feet deep: these had evidently been overflowed during floods, but at the present time the river was dead, not only partially dry, but so glaring was the sandy bed that the reflection of the sun was almost unbearable. Great numbers of the *Dum* palm (*Hyphæne thebaica*) grew upon the banks. . . . The only shade there is afforded by the evergreen Dum palms. . . . Many pools were of considerable size and great depth. In flood time a tremendous torrent sweeps down the course of the Atbara, and the sudden bends of the river are hollowed out by the force of the stream to a depth of twenty or thirty feet below the level of the bed. Accordingly, these hollows become reservoirs of water when the river is otherwise exhausted. . . . These pools are full of life, — huge fish, crocodiles of immense size, turtles, and occasionally hippopotami. . . . The animals of the desert — gazelles, hyaenas, and wild asses — are compelled to resort to these crowded drinking places. . . . Innumerable

[1] For something like twelve hundred miles, from the mouth of the Atbara to the sea, the Nile receives no further contribution of water.

doves, varying in species, throng the trees and seek the shelter of the Dum palms; thousands of sand grouse arrive morning and evening to drink and to depart."

In the pools of the Atbara Baker for the first time shot hippopotamuses. He also started fishing with a rod and line, and on one occasion caught an enormous "turtle." [1]

At the end of June they were nearly suffocated with the heat and dust of the Sudan summer, but they were to experience the effects of the melting of Abyssinian snows and of the descent of the tropical rains on that African Switzerland. On the 24th of June Baker was lying half asleep on his bed by the margin of the river when he fancied he heard a rumbling sound like distant thunder. This roar increased in volume till it awoke his Arabs, who rushed into the camp shouting, "The river! The river!"

"We were up in an instant, and my interpreter in a state of intense confusion exclaimed that the river was coming down, and that the supposed distant thunder was the roar of approaching water. . . . Many of the people were sleeping on the clean sand of the river's bed, and were only just in time to reach the top of the steep bank before the water was on them in the darkness. . . . The river had arrived 'like a thief in the night.' When morning broke I stood upon the banks of a noble river, the wonder of the desert! Yesterday there was a barren sheet of glaring sand with a fringe of withered bush and trees upon its borders. . . . No bush could boast of a leaf, no tree could throw a shade: crisp gum crackled

[1] *Cycloderma*, the Leathery Fresh-water Turtle.

upon the stems of the mimosas. . . . In one night there was a mysterious change. . . . An army of water was hastening to the wasted river, which had become a magnificent stream some five hundred yards in width and fifteen to twenty feet in depth. Bamboos and reeds with trash of all kinds were hurried along the muddy waters. . . . I realised what had occurred: the rains were falling and the snows were melting in Abyssinia. These were the main source of the Nile floods."

Baker left the Atbara in a land of wild asses and gazelles, and travelled to Kassala, — a fortress of the eastern Sudan since rendered famous by the struggle for its possession between Dervishes and Italians. Kassala is situated on the right bank of the river Mareb, which rises close to the Red Sea on the northern slopes of the Abyssinian plateau. The Mareb has every intention of reaching the Nile, or rather the Atbara, and no doubt did so in past epochs; but at the present time northwards of Kassala it loses itself in the desert.

"There was an extraordinary change [writes Baker] in the appearance of the river between Gozerajup and this spot. There was no longer the vast sandy desert with the river flowing through its sterile course on a level with the surface of the country, but after traversing an apparently perfect flat of forty-five miles of rich alluvial soil, we suddenly arrived upon the edge of a deep valley, between five and six miles wide, at the bottom of which, about two hundred feet below the general level of the country, flowed the river Atbara. On the opposite side of the valley, the same vast table-lands continued to the western horizon.

"We commenced the descent towards the river; the valley was a succession of gullies and ravines, of landslips and watercourses; the entire hollow of miles in width had evidently been the work of the river. How many ages had the rains and the stream been at work to scoop out from the flat tableland this deep and broad valley? Here was the giant labourer that had shovelled the rich loam upon the delta of lower Egypt! Upon these vast flats of fertile soil there can be no drainage except through soakage. The deep valley is therefore the receptacle not only for the water that oozes from its sides, but subterranean channels bursting as land-springs from all parts of the walls of the valley, wash down the more soluble portions of the earth, and continually waste away the soil. Landslips occur during the rainy season; streams of rich mud pour down the valley's slopes, and as the river flows beneath in a swollen torrent, the friable banks topple down into the stream and dissolve. The Atbara becomes the thickness of pea-soup, as its muddy waters steadily perform the duty they have fulfilled from age to age. Thus was the great river at work upon our arrival on its banks at the bottom of the valley. The Arab name, 'Bahr-al-Aswad' (black river), was well bestowed. It was the black mother of Egypt, still carrying to her offspring the nourishment that had formed the Delta.

"At this point of interest the journey had commenced; the deserts were passed, all was fertility and life; wherever the sources of the Nile might be, the Atbara was the parent of Egypt! This was my first impression, to be proved hereafter."

Baker gives a fine description of the splendid type of Arab who is still found in the regions of the Atbara:—

"He was the most magnificent specimen of an Arab that I have ever seen. Although upwards of eighty years of age, he was as erect as a lance, and did not appear more than between fifty and sixty; he was of Herculean stature, about six feet three inches high, with immensely broad shoulders and chest, a remarkably arched nose; eyes like an eagle, beneath large, shaggy, but perfectly white eyebrows; a snow-white beard of great thickness descended below the middle of his breast. He wore a white turban, and a white cashmere abbai or long robe, from the throat to the ankles. As a desert patriarch he was superb, the very perfection of all that the imagination could paint, if we would personify Abraham at the head of his people."

This fine old Sheikh brought ten of his sons, most of them as tall as himself. He seems to have been the father of many children, — a fortunate circumstance for the country, though no doubt nearly all of his stalwart descendants were extirpated in the miserable wars following on the Mahdi's revolt.

Baker ascended the Atbara to its upper waters, where it is known as the Settit (higher up still as the Takaze). Here he had magnificent hunting of big game amongst the Hamran Arabs, whose extraordinary prowess with the sword he describes most vividly. They would follow up elephants and hamstring them with a single blow of their long weapons, which were like those of the Crusaders. (As a matter of fact, the generality of the Hamran swords were manufactured at Sollingen in Germany.) In this land Baker saw innumerable giraffes, and most of the big

antelopes of Central Africa, including Kudu and Oryx. The country about the Upper Atbara below the Abyssinian highlands was exactly like an English park, though the trees were mainly acacias. Here and there was a gigantic baobab. In the waters of the river was found the now well-known Lung-fish, the *Protopterus*.

From the upper waters of the Atbara and its many tributaries Baker, skirting the western terraces of Abyssinia, reached the river Rahad, — an Egyptian affluent of the Blue Nile which flows nearly parallel to the river Dinder. These two streams rise on the western flanks of the Abyssinian tableland, and enter the Blue Nile about one hundred miles south-east of Khartum. On his way down this river Baker, in the country of Galabat, met two German lay missionaries proceeding to Abyssinia in spite of the objection expressed to their presence by King Theodore. "One of these preachers was a blacksmith, whose iron constitution had entirely given way, and the little strength that remained he exhausted in endless quotations of texts from the Bible, which he considered applicable to every trifling event or expression."

In June, 1862, the Bakers reached Khartum. After a long stay at the Pethericks' house, Baker decided, as already related, to go in search of Speke. His wife, the present Lady Baker, accompanied him. As already related, she was a Hungarian lady of great beauty, and possessed of extraordinary courage. Her fame as "*the* Lady" (Es-sitt) still lingers among the Nile Negroes.

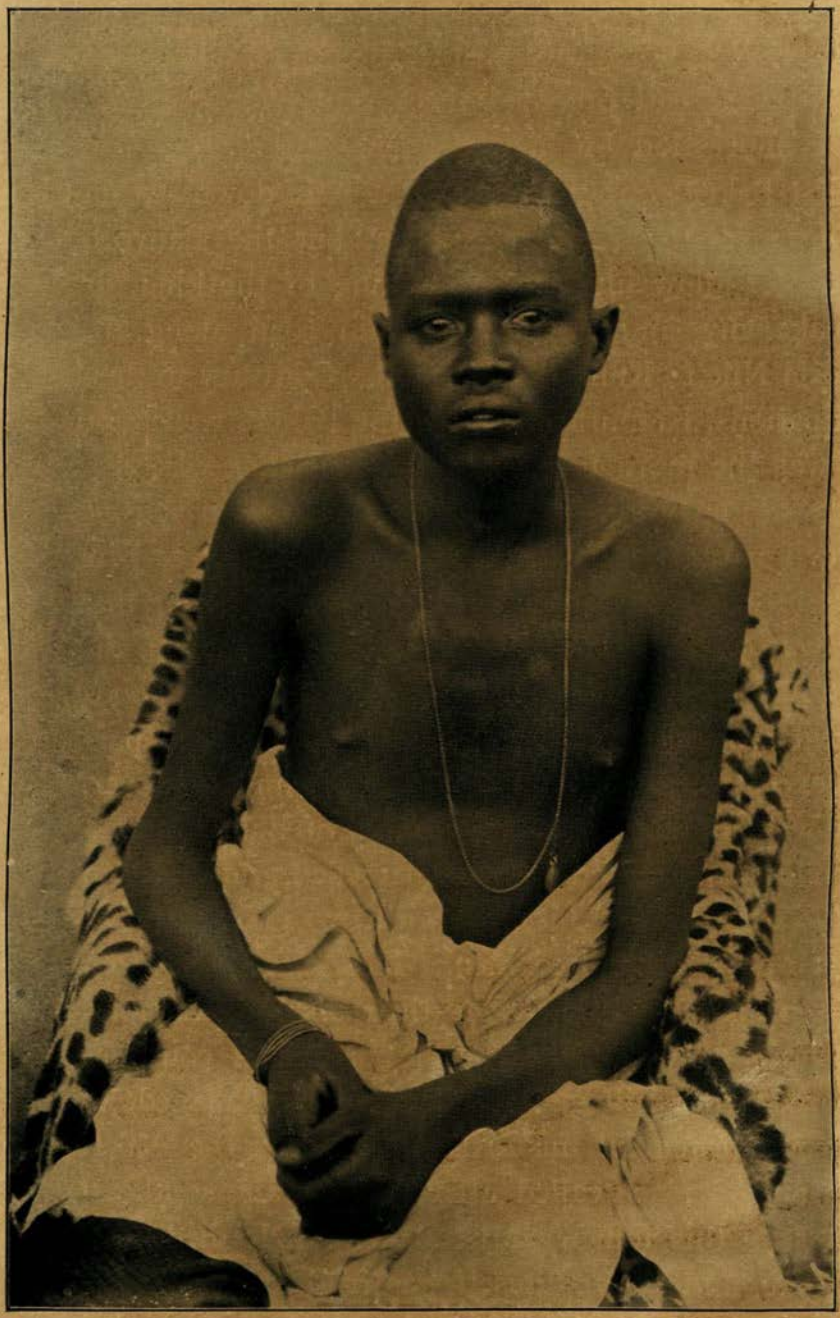
It has already been shown that Baker succeeded in being the first European to greet Speke and Grant. He received from these travellers the legacy to complete their task of ascertaining definitely the existence of the western Nile lake (Albert), of which Speke had heard under the name of Luta Nzige. On the 26th of March, 1863, the Bakers left Gondokoro on this errand.

Muhammad Wad-al-Mek, De Bono's agent, and all the other Nubian Nile traders, did their very utmost to prevent Baker returning along Speke's route through the Bari country. They incited his Khartum men to mutiny. Baker, being unable to obtain porters, owing to the excessive hostility of the slave-traders, employed the camels he had brought with him from Khartum for his transport. As the slave-traders had threatened, if he followed in their footsteps, to raise the natives about him, he determined to reach the back country of Lotuka first, and therefore deliberately strewed some of his goods in the way so as to delay the slave-traders, who stopped to pick them up. He was outdone at his own game, for a large caravan of "Turks" reached the Elliria country nearly as soon as he did. The leader of this expedition was one Ibrahim. Mrs. Baker resolved to see what could be done by a direct appeal to whatever the man might possess of generosity. The Bakers threatened that if he did them harm he would probably be hung at Khartum, while if he assisted them to see this lake, they would see he was well rewarded. The result was that a truce

was patched up between the slave-traders and Baker's small expedition. Nevertheless, a mutiny happened among Baker's camel-men in the vicinity of Lotuka. Some of these men ran away and joined a slave-trading party, which, however, was massacred by the Lotuka. Henceforth Baker's few men stuck to him faithfully, in terror of what might happen to them from his evil eye.

Baker journeyed southward through the splendid Lotuka country, — a land of which we know even now scarcely more than he told us forty years ago. The Lotuka people are a splendid race of Negroids, with a good deal more Gala blood in their veins than is the case with the Masai, to whom they are closely allied in language, but who dwell very much farther to the east and south. Since the days of Baker's adventure some of the Lotuka have become Muhammadans, and they are no longer completely nude in consequence. Their country is a very mountainous one, and on the whole well watered. It will probably play a considerable part in the future of the Uganda Protectorate. Working steadily south through the Madi and Acholi countries, the Bakers forded the Asua, the great southeastern tributary of the Mountain Nile. Here nearly all their porters deserted, and as their camels had died in the Madi country, they were obliged to abandon all loads which were not absolutely necessary, — such as ammunition, and presents for Kamurasi.

At length they arrived at the Karuma Falls on the



[*Face page* 185.

A NATIVE OF UNYORO.

Victoria Nile, and entered Unyoro. Their first reception in Unyoro was hostile, because Muhammad Wad-al-Mek had preceded them, and had made the worst impression by his treatment of the Banyoro. At first Baker desired to follow the Nile down stream till it entered the Albert Nyanza, but the Banyoro would not allow him to do anything of the kind, or to make any journey off the main road along the Victoria Nile to Kamurasi's capital. Contrary to their anticipations, Kamurasi received the Bakers well; and this was the more fortunate, as Mr. Baker was very nearly dead with fever. But Kamurasi soon showed his evil nature. He refused to allow Baker to proceed due west to the Albert Nyanza, declaring that lake was distant a six months' journey. Ibrahim, the slave and ivory trader, had purchased all the goods he required, and had left Unyoro. All Baker's porters, except thirteen, had deserted. Finding, however, there was nothing more to be got out of Baker, Kamurasi relented, accepted a double-barrelled gun, and sent off the explorer and his wife with two guides and an escort of three hundred men. This escort, however, was soon sent back, owing to their unruly behaviour. Somehow or other, with such porters as could be procured from village to village, they managed, in the teeth of fearful misfortunes, to reach the Albert Nyanza at a place called Mbakovia, on the southeast coast. On this journey Mrs. Baker nearly died from sunstroke, and Baker himself was frightfully ill. But on the 16th of March, 1864, they had discovered a

great lake "with a boundless sea-horizon to the southwards," which they named the Albert Nyanza.

At the time of Baker's visit no doubt (though he does not say so) there was a good deal of mist about this lake, — a common feature. The mist and the clouds seem to have prevented the travellers from getting any glimpse of the mass of the Ruwenzori snow-range which lay not many miles distant from them to the south. They also believed (though they were then a day's journey from the end of the lake) that there was a boundless sea-horizon to the south. Their misapprehension of the geography of this lake has often caused surprise; but apart from a natural tendency to exaggerate the importance of their own particular lake, in looking to the southward they were looking up the broad valley of the Semliki, which was undoubtedly at one time — at any rate for a distance of some fifty miles — a southern extension of the Albert Nyanza. This valley was bordered on either side by cliff-like mountains — plateau edges — continued northwards along the coasts of the Albert Lake. To the west of Lake Albert the plateau tilts westwards towards the Congo basin. Baker called the western cliffs and the foothills of Ruwenzori the Blue Mountains, — a name they might very well continue to bear, as there is no native designation for these heights, which separate so abruptly and by only a few miles the basin of the Congo from the basin of the Nile.

After a short stay at Mbakovia, the Bakers got into canoes and coasted along the Albert Nyanza to

Magungo, where the lake is entered by the Victoria Nile. They ascended the Victoria Nile and discovered the Murchison Falls, "where the river drops in one leap one hundred and twenty feet into a deep basin, the edge of which literally swarms with crocodiles." On their overland journey in the direction of the Karuma Falls, their porters again deserted, and for two months they were stranded, almost at death's door, living with difficulty on wild herbs and mouldy flour; occasionally, but rarely, obtaining fowls from the natives. Once more they came within the persecution of Kamurasi, who pestered Baker for his assistance in a war he was carrying on against his relation, Fowuka. Whilst Baker was hesitating, the Nile was crossed by one of De Bono's caravans of ivory-traders, who had entered into an alliance with Fowuka. They were just about to attack Kamurasi's army (and with their one hundred and fifty guns would have easily defeated it) when Baker planted the British flag in Kamurasi's camp, and warned De Bono's soldiers that the Unyoro king was now under British protection. Overawed by Baker's threats, the ivory-traders withdrew to the north side of the Nile. The only return that he received from Kamurasi for this service was that the latter placed every obstacle in his way to prevent his leaving Unyoro. At the same time Mutesa of Uganda, having heard of a white man's arrival in Unyoro, and imagining that Kamurasi was stopping his further journey to Uganda, sent a large army to ravage Unyoro. Kamurasi fled

to some islands in the Nile, and left Baker to shift for himself, without provisions or beasts of burden, at the Karuma Falls. From this point he managed to send messages to Ibrahim, the slave and ivory trader, and the latter came to his assistance. With the aid of Ibrahim, the Bakers, who had lost everything except guns and ammunition, eventually managed to return to Gondokoro, though they were nearly killed on the way by the Bari tribe, which had risen against the slave-raiders. At Gondokoro their troubles were not ended, for the sudd had begun to form, and obstructed the passage of the White Nile. Plague also had broken out in Khartum. But the travellers fought through all obstacles, any one of which might have wrecked an expedition conducted by less intrepid people, and reached Khartum in May, 1865. Here they remained two months to recuperate, and during this time they managed to secure the banishment of one of the slave-traders who had incited the mutiny of their men at Gondokoro in 1863.

From Khartum they travelled to Berber down the Nile, and then started on camels to cross the desert to Suakin. They reached England in the autumn of 1865. By this time perhaps African exploration had become more interesting to the British government, for Baker received for his discoveries a well-earned knighthood, — a distinction which might very well have been accorded to Speke or to Grant. As a matter of fact, the only reward given to the last-named traveller was a C.B., which was awarded, not for his

marvellous "Walk across Africa," but for the inconspicuous services which he rendered some years later in connection with the Abyssinian War.

As the result of the Speke and Baker explorations, so far as published maps were concerned, our knowledge of the Nile basin in 1865 was as follows: The shape and area of the Victoria Nyanza were roughly indicated, together with the outlet of the Victoria Nile at the Ripon Falls. The course of the Victoria Nile was mapped (with a good many blanks) from the Ripon Falls to the north end of Lake Albert Nyanza. Baker was able to show that there was a widening of the Victoria Nile opposite the eastern frontier of Unyoro, but it was some years later before this widening was discovered to consist of two large lakes (Kioga and Kwania). Baker had given an extremely exaggerated size to the Albert Nyanza. Speke, on the other hand, had sketched this lake with remarkable accuracy merely from hearsay. The course of the Nile from the north end of Lake Albert to its junction with the Asua River was quite unexplored. The rest of the course of the Mountain Nile was mapped as far as its junction with the Bahr-al-Ghazal, but very little was known about one of its branches, the Giraffe River. No further researches beyond those made by the Turks had taken place on the Sobat River.

As for Sir Samuel Baker, we take leave of him here as one of the great explorers of the Nile. He returned to the regions of the great lakes in 1869, having been appointed for four years in charge of an

expedition to subdue and annex to the Egyptian Empire the equatorial regions of the Nile basin. This object involved him in incessant fighting in Unyoro, with the slave-traders between Unyoro and Gondokoro, and with the Bari. Some of these conflicts were forced on him; others, it is to be feared, he precipitated by his determination to enlarge the territories of the Egyptian Sudan. His time would seem to have been passed mainly in warfare with one enemy or another, or in laying very solidly the foundations of a civilised administration. His stay in Equatoria resulted in but little addition to our knowledge of the Nile and its affluents. A good many of his efforts for the welfare of the country were thwarted by the Egyptian Governor-General at Khartum, and after his departure, in 1873, some of his worst enemies among the slave-traders were reinstated. This much must always be recorded to the credit of Sir Samuel Baker's work on the Upper Nile: he inspired universal respect among the fair-dealing natives; he, first of all, broke the back of the immense slave-trading industry which had sprung up on the Mountain Nile, in Unyoro, and in the Acholi countries; throughout these regions the natives can remember but one great and good administrator before the present régime, and that is Sir Samuel Baker. "Gordoom" Pasha is but a name, and represents little to their minds; Emin they only remembered as an enthusiastic naturalist, who did but little to check the rapine and wrong-doing of his Sudanese soldiers; but

"Baker Basha" is, in the remembrance of the old people, the one heroic White man they have known: terrible in battle, scrupulously just, at all times kind and jovial in demeanour amongst friends; a born ruler over a savage people.

CHAPTER XVI

ALEXANDRINE TINNE AND THEODOR VON HEUGLIN

THE journeys of Petherick and Miani in the western Nile basin have already been described. The very interesting region of the Bahr-al-Ghazal, however, had been relatively neglected by scientific explorers down to the beginning of the sixties of the last century. Petherick's own map of these regions was not published till 1869. There were two obstacles to water travel in this direction: the sudd, and the terrible fevers which attacked Europeans. The introduction of steamers on the Upper Nile to some extent enabled Europeans to force their way up streams which were not to be penetrated by sailing-vessels. Quite a rendezvous had been created at a place called Mashra-ar-Rak, where many great streams coming from the Nyam-nyam country enter the Bahr-al-Ghazal, which, as a geographical term, applied to the western lake-like affluent of the Nile, may be said to begin its course here.

Miss Tinne, who with her German companions Von Heuglin and Steudner was to considerably increase our knowledge of these regions, had already, in 1859 and 1860, ascended the White Nile in sailing-vessels to near Gondokoro. In 1861 she organised a great

A. P. de Tinne.

ALEXANDRINE TINNE. [*Face page* 193.

expedition in steamers and boats, which was accompanied by her mother, her aunt, and, later on, by several scientific explorers, — such as Baron d'Ablaing, Theodor von H[illegible]eugnin, and Dr. Steudner. This expe[illegible]n was intended to explore the region of the Bah[illegible]al, to see how far the Nile basin extended[illegible]ward in the direction of Lake Chad, and also, if p[illegible]ssible, to discover a great lake in the very heart of Africa, of which rumours had been brought back by Miani and others.[1]

Alexandrine[2] Tinne was the daughter of Philip Frederic Tinne and Henrietta, Baroness van Steengracht Capellen. Her father, Philip Tinne, was a D[illegible]man, who settled in England during the wars of French Revolution, the French invasion of Hol[illegible]nd having brought his family into trouble. The Tinnes were of remote French Huguenot origin, having emigrated to Holland from Calais. But further back still they came from Saxony. A very far back ancestor went to the Crusades, and distinguished himself at Rosetta (Egypt) by clambering onto the Saracen battlements. He received therefrom the soubriquet of "Tinne" (in Low Dutch, a battlement) and a coat of arms, still used by the family, embodying battlements. It is remarkable that Miss Tinne's remote ancestor should have sprung into

[1] This great lake was in reality nothing but the lake-like course of the Upper Congo. The words for river and lake in almost all African languages are the same.

[2] She usually signed herself Alexine. Her full name was Alexandrina Petronella Francina Tinne. The name is spelt without an accented *e*, and is pronounced as it would be in German.

fame in the thirteenth century at the *mouth* of the Nile. Philip Tinne, who emigrated to England at the end of the eighteenth century, returned to Holland after Napoleon's downfall, and married a Dutch heiress, the daughter of Admiral van Capellen. He died when his daughter Alexandrine was five years old, leaving her the richest heiress in the Netherlands. It is said that when a young girl she had a serious love disappointment, and dismissed or lost her fiancé. To stifle her mental anguish, she undertook a course of travel;[1] and after staying for some time in the Levant and Egypt, ascended the Nile in dahabiahs to near Gondokoro. This journey was followed by the great expedition to the Bahr-al-Ghazal in 1861. It is said that this expedition was even provided with European lady's-maids. Probably no equally luxurious and well-equipped undertaking ever started for equatorial Africa. Miss Tinne commenced her second Nile journey by ascending the main stream as far as Gondokoro, and then, returning, she explored a portion of the Sobat River. She set out once more with the whole party from Khartum in February, 1863, and entered the Bahr-al-Ghazal. This was ascended as far as the mouth of the Bahr-al-Hamr. From this point a journey was then made overland to the Jur and Kosango rivers, and to the mountains on the borders of the Nyam-nyam coun-

[1] Her nephew, Mr. John Tinne, however, informs the present writer that his aunt once wrote to him, saying that "ever since she was a little girl doing lessons she had longed to see what there was on the great blank spot on the map of Africa."

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ON THE JUR RIVER : SUDD BLOCKING THE CHANNEL.

y. On this exploration the travellers suffered most verely from fever. Dr. Steudner and the Baroness an Capellen eventually died of blackwater fever, and he remainder of the party only managed with the greatest difficulty to reach Khartum in July, 1864, where further deaths occurred. The geographical results of this expedition were not published in full till 1869, though Miss Tinne's cousin printed some notes on their expedition at Liverpool in 1864.

After four years spent in various places in Egypt, Algeria, and Tunis, Miss Tinne started from Tripoli with a very large caravan to proceed to Lake Chad, intending afterwards to journey from Lake Chad to the Upper Nile.

Miss Tinne took with her two Dutch sailors to ssist in the organisation of her caravan, several Al- rian women-servants, and her confidential old Ne- ess, Saadah, who was originally a slave freed by ies Tinne in the Sudan. The Turkish authorities de no opposition to her journeys, nor do they seem to have been in any way to blame for the catastrophe that occurred. Unfortunately, Miss Tinne, in order to provide for the comfort of her followers as well as for herself, decided to take with her one or more iron tanks filled with water, which were carried by e camels. These tanks attracted much attention en the expedition halted for a time at Murzuk, apital of Fezzan, where Turkish authority was aintained. The rumour that they contained in coin which was to accompany this wo-

derful princess into the heart of Africa spread fro the bazaars of Murzuk to the Tawareq of the dese ever on the lookout to plunder caravans crossing the Sahara.

Miss Tinne had taken all reasonable precautions to secure the friendship of the Tawareq on this journey. She had sent messages to Ghat, an important Saharan town, to the chief Ikenukhen, with presents, and requests for guides. The chief replied that he would meet her himself at a water place on the way to Ghat, and send her the guides. These guides apparently concerted measures with the Arab and Tawareq camel-drivers of her expedition, and plans were evidently laid for her murder and the plunder of her goods.

The expedition had halted at Wadi Aberjong t await the Tawareq chief Ikenukhen. On the ear morning of the 1st of August Miss Tinne, her tent, heard the Arab and Tawareq camel-dri disputing about arranging the saddles of the gerian women-servants. She called to the Dutch sailors to stop the noise, which had developed into a sham fight. The Dutch sailors went amongst the men to get at their own luggage and take their rifles. The camel-drivers stopped their sham fight and endeavoured to prevent the Dutch sailors o taining their arms. Miss Tinne, hearing the c tinued clamour, came out of her tent to inqui meaning. She held up her right hand to co attention. Suddenly there was a cry of "Strik

a Tawareq made a cut at her with a sabre, which severed her right hand almost entirely through the wrist, so that it hung only by tendons of skin. The poor girl endeavoured to replace it in position, and staggered back to her tent, where she sat on a box. At the same moment that the blow was aimed at her one of the Dutch sailors, Cornelius, was pierced through the body by a spear. The other, Jacobse, was killed by a sabre cut cleaving his head. Cornelius, with the spear passing right through him, ran into the tent and fell at Miss Tinne's feet. A man followed him, pinned him to the ground with another spear, and fired two pistol shots into his head. Another Tawareq struck Miss Tinne with a sabre on the nape of the neck, which cut through the foulard enveloping her head, and severed the long plait of her hair, but did not cut through the spine. She fell forward to the ground, stunned. Two men then tore off most of her clothing, and, seizing her by the heels, dragged her out of the tent to a spot a few yards away, where they left her lying on the sand in the blazing sunshine. Her poor old Negress, Saadah, followed, and raising her head, gently rested it on her knee; but the Tawareq tore her away, and drove her back into the camp. The unfortunate Alexandrine Tinne lay where she was left from eight o'clock in the morning to three o'clock in the afternoon, when death at last ended her sufferings. At intervals she called piteously on her people, one by one, to bring her water, but none were allowed to approach her. One of her

Arab servants was asked afterwards why they behaved so callously. He replied, "We had no arms, we were like women: they kept us in the tent, and threatened to kill us if we came out."

Her baggage was ransacked by the Arabs and Tawareq, among whom disputes then arose as to the allotment of the Algerian waiting-maids and men-servants. Strange to say, this dispute ended by both parties agreeing to make no slaves. The servants were each given a camel and a dollar, and allowed to return to Murzuk.

The Pasha of Murzuk sent soldiers out to bury the bodies. They laid a strip of calico about thirty yards long on the sand, and wound it round Miss Tinne's body by rolling it over with sticks, to avoid touching her. Then they put boards on each side loaded with stones, and piled sand over all. The two bodies of the faithful sailors were laid on each side of her. Men were afterwards sent out to mark the spot, but the sand of the desert had in the interval been blown over the place, thus hiding the grave of this beautiful and talented woman.[1]

The leader of not a few exploring parties in Africa has been alone to blame for disasters to his expedition, by committing himself or allowing his followers to commit misdeeds sufficient to justify native hostility. But wherever Miss Tinne and her expeditions went in Africa, they left behind them nothing but the

[1] This account of the death of Miss Tinne is derived from information very kindly supplied to the author by her nephew, Theodore F. S. Tinne, Esq., of Hawkhurst, Kent.

to make the bowenoures here. but
reflecting it would be too difficult,
to made all the little necessary
items come as sowing thread,
, lining, etc etc and as at Tripoli
all is so dear and badly, made
if one does not sorry the making
one self, I thought best to ask
Mrs Hondus to send me some ready
made ones — I thought for a
moment of Europe, but there one,
is not in the habit enough of making
bowenoures, and one might make
some mistake; —
I countermanded the cloth by the
following telegram =
no send red and black cloth-
line all cases carefully with tin,
and locks no nailed —
Please re-embarrass then Mrs
Hondus soon, and believe me
yours ever
Alaine

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LETTER OF MISS TINNE TO HER NEPHEW JOHN.
Written from Tripoli, 1869

memory of considerate treatment, kindness, and acts of sumptuous generosity. In all the preparations which Miss Tinne made for crossing the Sahara, and so reaching the western limits of the Nile basin, she showed a desire to conciliate the suspicions of the people, and paid generously for assistance afforded. The fierce Berber tribes which range over the Sahara Desert from North Africa to the neighbourhood of Lake Chad, almost alone of all African races, have earned sharp reprisals from Europeans for their innumerable acts of causeless treachery to explorers. If ever the French occupy the district of Ghat, as they will eventually some day, it is to be hoped that they will bear in mind the massacre of Alexandrine Tinne and avenge it.

This woman was the romantic figure in Nile exploration. Young and beautiful,[1] remarkably accomplished, a daring horsewoman, a charming Diana; mistress of many tongues, including Arabic, and generous to a fault, it is little wonder that the "Signorina" (as she was called in the days when most dragomen were Italian or Maltese) has lingered as a beautiful and gracious demi-goddess in the remembrance of such Arabs and Nile Negroes of the Egyptian Sudan as were not exterminated by the Mahdi's revolt.

Theodor von Heuglin was a native of Würtemberg. He was a scientific observer and a naturalist much in the style of Schweinfurth. His interest in the explo-

[1] She was only thirty-three at the time of her death.

ration of the Nile basin was rather in the direction of zoölogy and anthropology. He began to travel in these regions in the fifties of the last century. With Munzinger, a Swiss (afterwards Munzinger Pasha), and Dr. Steudner, a German, he explored Kordofan, and the regions round Khartum. In 1862 Von Heuglin and Steudner joined Miss Tinne's Nile expedition, and as her guest or alone on their own account, explored the affluents of the Bahr-al-Ghazal and the main White Nile. After the death of Steudner and of Miss Tinne's aunt and mother from blackwater fever, Heuglin turned away from these regions with some disgust, and devoted himself henceforth to the exploration of the healthier regions along the upper waters of the Blue Nile and of the Atbara. In all this part of western and northern Abyssinia he made valuable collections of natural history. Von Heuglin's books are of very great interest, and are full of valuable natural history notes. His writings were published between 1860 and 1875, generally in Germany.

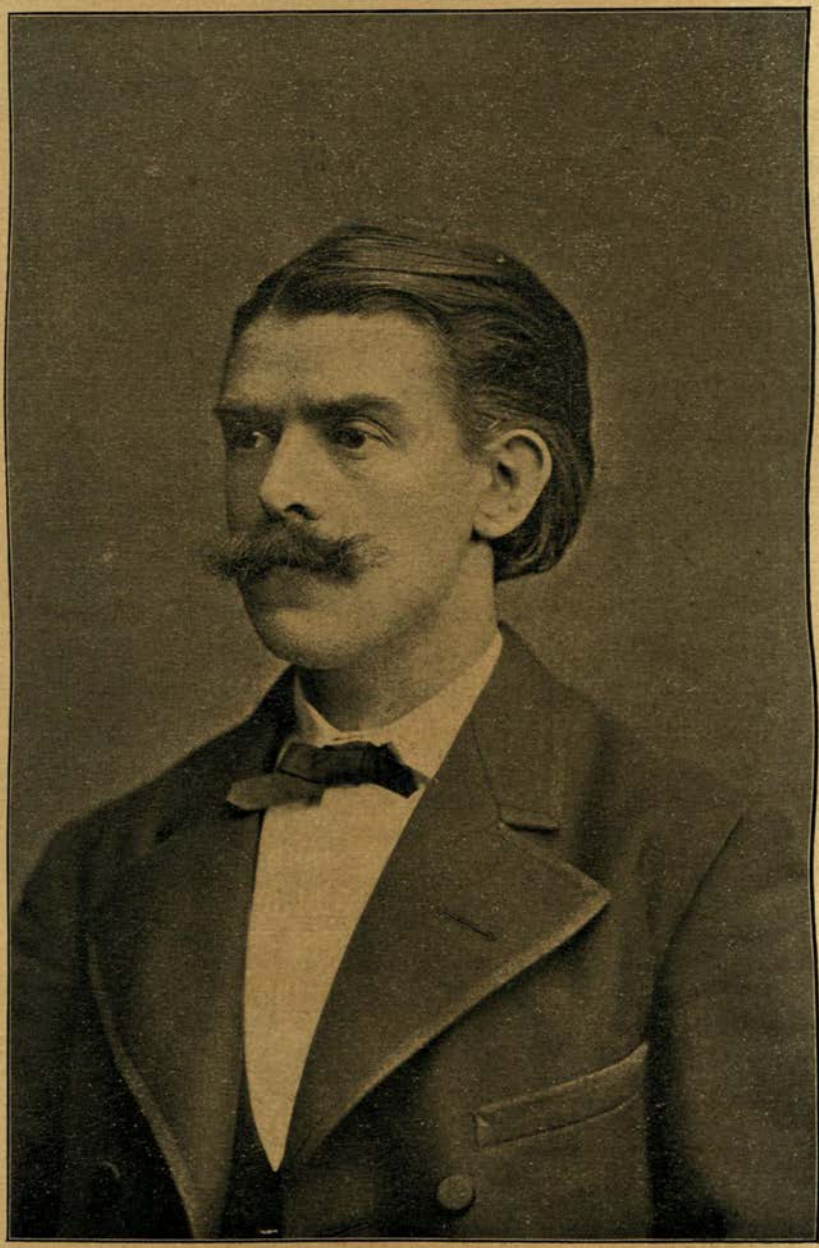
CHAPTER XVII

SCHWEINFURTH AND THE BASIN OF THE BAHR-AL-GHAZAL

AS already related down to 1869, but little had been placed on the map concerning the western tributaries of the Nile in the region now styled generally the Bahr-al-Ghazal Province. The Bahr-al-Ghazal itself is the gathering up of some nine great rivers. These unite to form a marshy, lake-like stream, which indeed widens out into a lake of variable size (Lake No) at its junction with the main or Mountain Nile. The great breadth of the Bahr-al-Ghazal is often disguised, and the open water reduced to a mere thread by an immense floating vegetable growth which we now know by the name of *sudd*. The name "Bahr-al-Ghazal" simply means a "River of Antelopes," and is a designation given to the great western affluent of the Nile by the Sudanese Arabs. Rumours of this important contribution coming to the Nile from the west (and the tributary periodical streams known as the Bahr-al-Arab or Bahr-al-Hamr extend the Nile basin as far west as the frontiers of Wadai) reached even the Greek geographers two thousand years ago, and induced some of them to believe that the main sources of the Nile lay far to the west, near where Lake Chad is situated

on the map. Then this was forgotten, and it was not until Arabs and Nubians had begun to extend their commerce into the Sudan, when Egypt was under Turkish rule, that the existence of the Bahr-al-Ghazal was again mooted. This affluent of the Nile was first sketched on the map with an approach to definiteness in 1771, when D'Anville plainly indicates its existence. In a very truncated form it appears on the maps of the Nile drawn from the surveys of the Frenchmen who accompanied the three expeditions sent by Muhammad Ali to conquer the Sudan between 1839 and 1841. In the forties of the last century Nubian slave-traders started in numbers to explore these regions, firstly to purchase ivory, and secondly to acquire slaves. The strange Nyam-nyam cannibals began to be heard of at Khartum about 1845. Petherick himself went in these directions in 1848. He was followed, as has been related, by Miani the Venetian, and by Miss Tinne and Von Heuglin. First of all Europeans, Miani had penetrated so far south up these affluents of the Bahr-al-Ghazal as to have heard from the Nyam-nyam people of the existence of the Welle River, which he reported to Petherick, and through Petherick to Speke, as a great river flowing steadily to the west. This was the first hint received of the southwestern limits of the Nile basin.

But little precise information about the southern portions of this wonderful region had reached Europe until the work of Schweinfurth was completed in 1871.



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GEORG SCHWEINFURTH (1875).

Georg Schweinfurth is a native of Riga in the Baltic Provinces of Russia. He is consequently of German extraction. He was born in 1837, and in the early sixties spent much time in exploring for botanical purposes Nubia, Upper Egypt, southwestern Abyssinia, and the regions between these countries and the Red Sea coast. The tropical luxuriance of the vegetation in the outlying districts of Abyssinia attracted him to further journeys towards the equator. He conceived the idea of visiting the then least known part of the Nile basin, the Bahr-al-Ghazal province. For this purpose he obtained ample funds from the Royal Academy of Science at Berlin. Apart from the fact that he was a German by descent and speech, his great explorations of the Nile were due entirely to German support, and must be considered one of Germany's many contributions towards the Nile Quest.

Schweinfurth landed at Suakin in September, 1867. Before proceeding on his voyage up the White Nile, he resolved to commence with a preliminary exploration of the mountains to the south and west of Suakim between the end of the Nubian Alps and the beginning of the Abyssinian highlands. This elevated district lies for the most part within the watershed of the Atbara's tributaries, though it also sends down intermittent torrents to the Red Sea. In the mountains to the south of Suakin first appears to any traveller coming from Egypt and the north the characteristic vegetation of tropical Africa, especially such types as the dragon trees (*Dracænæ*) and arbores-

cent euphorbias. These types begin at an altitude of about two thousand feet, as at that height they obtain some moisture, whereas lower down the country is mostly an arid desert. The Nubian *Dracænæ* and those of the slopes of the Abyssinian tableland are relatively dwarfish (at most some twenty feet high) compared to the giant forms of these tree-lilies which are met with in equatorial Africa. Aloes, of course, grow in the same districts as the euphorbia and the dracæna. "Found in company with them is a wild, unearthly-looking plant called the 'Karaib' (*Bucerosia*), of which the branches are like wings, prickly and jagged round the edges like a dragon's back. They produce clusters of brown flowers as large as one's fist, which exhale a noxious and revolting smell, the plants themselves being swollen with a white and slimy poisonous juice." Another item in this harsh vegetation is the *Sanseviera,* a plant belonging to the same group as the aloes, lilies, and dracænas, with isolated, leathery leaves like sword blades, though sometimes with rolled edges like a thick, leathery whip. Higher up, at altitudes of from four thousand to six thousand feet, the trees are covered with clusters of *Usnea* lichen. On the northern spurs of the Abyssinian highlands is found the wild olive tree, "of low bushy shape, with box-like foliage." The wild olive is found nowhere else in tropical Africa beyond the Abyssinian region.

All watercourses with a supply of moist soil under ground just sufficient for a few months' vegetation

are comprehended within the Arab designation *Wadi*. Cheerless through the dry season, after the first rain their level sand flats are clothed with the most luxuriant flora; fresh-springing grasses put forth their pointed leaves and give the sward the appearance of being dotted with a myriad spikes; then quickly come the sprouting blades, and the river bed is like a waving field of corn. Half-way between Singat and Erkowit Schweinfurth halted at a wady of this character, which bore the name of Sarrowi. He writes: —

"What a prospect! How gay with its variety of hue, — green, red and yellow! Nothing could be more pleasant than the shade of the acacia, nothing more striking than the abundance of bloom of the Abyssinian aloe, transforming the dreary sand beds into smiling gardens. Green were the tabbes-grass and the acacias, yellow and red were the aloes, and in such crowded masses, that I was involuntarily reminded of the splendour of the tulip beds of the Netherlands: but here the garden lay in a waste of gloomy black stone. One special charm of a desert journey is that it is full of contrasts, that it brings close together dearth and plenty, death and life; it opens the eyes of the traveller to the minutest benefits of nature, and demonstrates how every enjoyment is allied to a corresponding deprivation."

When he reached the Nile, coming from Suakin, he was received at Berber by an old acquaintance, M. Lafargue, who was settled in that starting-point for Suakin as a merchant and French vice-consul. Lafargue, himself an experienced traveller on the Upper Nile, received the German explorers with that

hearty hospitality "which many other desert wanderers have proved besides myself."

"Sir Samuel Baker [writes Schweinfurth] aptly compares such receptions to the oasis in the desert. No necessity for letters of introduction here as with us in Europe, no hollow forms of speech, exchanging courtesies which perchance mean the very reverse; no empty compliment of at best a tedious dinner; but here in the Egyptian Sudan we are received with free and genial amiability; all Europeans are fellow-citizens, and everything is true and hearty. 'What pleases me the most is the ease with which you travel in this country; you come, you go, you return again as though it were a walk.' Such were M. Lafargue's cordial words to me. We parted well pleased with one another; I shall not see him again."

About that part of the journey from Berber to Khartum by way of the Nile Schweinfurth gives a vivid description. For the first part of the voyage, as far as Shendi and Matammah, the only considerable towns in this district, the shore offered nothing attractive. It reminded him of the Egyptian valley of the Nile only in two places, — the mouth of the Atbara, and one spot where the renowned pyramids of Meroe formed a noble background.

Matammah was then a populous town, but dull and unenterprising. The buildings, constructed of Nile earth, were insignificant in themselves, and irregularly crowded together in a mass like huge ant-hills; not a single tree afforded shade in the dreary streets, which were filthy with dirt.

The Nile voyage below Shendi was, however, rich

in the charms of scenery. This was especially applicable to the views afforded by the river islands. These islands were so many throughout the whole extent of the sixth cataract between the island of Marnad and the lofty mountain-island of Royān, "that no one pretends to know their precise number, and the sailors call them in consequence the ninety-nine islands." The landscapes on shore afforded the traveller a treat "which no other river voyage could surpass." Splendid groups of acacias, in three varieties, with groves of 'holy-thorn,' overgrown by the hanging foliage of graceful climbers, made the profusion of islands set in the surface of the water appear like bright green, luxuriant, and gay tangles.

"Wildly romantic on the contrary, reminding one of the Bingerloch on the Rhine, are the narrow straits of Sablu where the Nile, reduced to a deep mountain stream, flows between high, bare granite walls that rise to several hundred feet.

"So much the more surprising appeared the breadth which the Nile exhibited above this cataract, where it displays itself in a majesty which it has long lost in Egypt. Below their confluence, the waters of the Blue and the White Nile are distinctly visible many miles apart. It is highly probable that at certain times the level of the streams might show a difference of several feet; the proposed establishment of a Nilometer should therefore take place below the confluence, in order that with the help of the telegraph accurate intelligence of its condition might be remitted to Cairo."

Schweinfurth reached Khartum on the 1st of November, 1868. He left that place in January, 1869,

for the Bahr-al-Ghazal. Of his voyage up the White Nile he writes: —

"As the morning sun fell upon the low, monotonous shores of the flowing river, it seemed at times almost as though it were illuminating the ocean, so vast was the extent of water where the current ran for any distance in a straight and unwinding course. . . . The districts along the shore mostly retained an unchanging aspect for miles together. Rarely does some distant mountain or isolated hill relieve the eye from the wide monotony. . . . The attention is soon attracted by the astonishing number of geese and ducks which are seen day after day. The traveller in these parts is so satiated with them, fattened and roasted, that the sight creates something akin to disgust. The number of cattle is prodigious: far as the eye can reach they are scattered alike on either shore, whilst, close at hand, they come down to the river-marshes to get their drink.

"The stream, as wide again as the Nile of Egypt, is enlivened by the boats belonging to the shepherds, who row hither and thither to conduct their cattle, their dogs in the water swimming patiently behind."

Early on the third day he reached Getina, a considerable village inhabited by Hassaniah Arabs (long since wiped out by the Dervishes). Getina was then a favourite rendezvous of the Nile boats. The flats here were bright with the luxuriant green of sedges which in their abundant growth imparted to the banks the meadow-like character of European river-sides. Thousands of geese (*Chenalopex ægyptiacus*), in no degree disconcerted by the arrival of humans, paced the green-

sward. Although in places the right bank was bounded by sand-banks thirty feet high, the left appeared completely and interminably flat, and occasionally admitted the culture of sorghum. "This remarkable difference which exists beween the aspect of the two banks, and which may be observed for several degrees, is to be explained by a hydrographical law, which is illustrated not only here, but likewise in the district of the Lower Nile. As rivers flow from southerly into more northern latitudes, their fluid particles are set in motion with increased velocity, the result of which is to drive them onwards so as to wash away the eastern bank, leaving a continual deposit on the west."

About two hundred miles to the south of Khartum more signs of Tropical Africa begin to appear. Graceful, shade-giving acacias (*A. spirocarpa*) grew on the river banks, where also were seen great masses of large-leaved shrubs, many of them covered with the [illegible]autiful blossoms of the *Ipomœa* convolvulus. Hippopotamuses were abundant, lions were heard roaring at night, and the semi-Arab, somewhat Nubian population was gradually replaced by the naked, black, and lanky Shiluk Negroes. Great monitor lizards (*Varan*[illegible] and snakes rustled in the dry grass, while *Cer*[illegible]*hecus* monkeys, crowned cranes, and handsome [illegible]nd white waterbuck diversified the aspect of the [illegible]-banks; huge crocodiles lay on the foreshore. In [illegible]o Nileland Schweinfurth first noticed the ambatch. [illegible]is really a member of the bean tribe (*Herminiera* [illegible]*roxylon*), which grows in shallow water. Its

leaves resemble those of the acacia, and its blossoms are bold, pea-like flowers of bright orange.

"The ambatch is distinguished for the unexampled lightness of its wood, if the fungus-like substance of the stem deserves such a name at all. It shoots up to fifteen or twenty feet in height, and at its base generally attains a thickness of about six inches. The weight of this fungus-wood is so insignificant that it really suggests comparison to a feather. Only by taking it into his hands could anyone believe that it were possible for one man to lift on his shoulders a raft made large enough to carry eight people on the water. The plant shoots up with great rapidity by the quiet places on the shore, and since it roots merely in the water, whole bushes are easily broken off by the force of the wind or stream, and settle themselves afresh in other places. This is the true origin of the grass-barriers so frequently mentioned as blocking up the waters of the Upper Nile, and in many places making navigation utterly impracticable. Other plants have a share in the formation of these floating islands, which daily emerge like the Delos of tradition; among them, in particular, the *Vossia* grass and the famous papyrus of antiquity, which at present is nowhere to be found on the Nile either in Egypt or in Nubia."

Schweinfurth notices a remarkable extinct volcano called Defafang, one thousand feet high, which is situated some five miles from the east bank of the [illegible] in about latitude 10° 50′ north. This extinct vo[illegible] was first discovered by Ferdinand Werne, who [illegible] lected specimens of the rocks, — chiefly basaltic [illegible] Defafang for a long time was the boundary on [illegible] side of the Nile between the territory of the Neg[illegible]

n the south and that of the more or less Arab shepherds on the north.

At the village of Kaka, on the east bank of the White Nile, Schweinfurth observed ruins of a fort which had once been the headquarters of a renowned robber chief, Muhammad Kher. This man, who flourished between 1840 and 1855, was a Nubian, who gathered round him a number of well-armed Baggara Arab horsemen. He was one of the first of the slave-traders to show how, by means of fortified tions, it was possible to intimidate the Negroes of Sudan and bring them into subjection. Muham- Kher and his Arabs devastated the country for eds of miles along the banks of the Nile, exter- ng the population in many places. At Kaka rth found himself greeted by a great crowd Shiluks, who, prompted by curiosity, as- n the shore.

"The first sight of a throng of savages suddenly presenting themselves in their native nudity is one from which no amount of familiarity can remove the strange impression; it takes abiding hold upon the memory, and makes the traveller recall anew the civilisation he has left behind. . . . Although these savages are altogether unacquainted with the refined cosmetics of Europe, they make use of cosmetics of their own; viz., a coating of ashes for protection against insects. When the ashes are prepared from wood they render the body perfectly gray; when obtained from cow-dung they give a rusty red tint, the hue of red devils. This colour is only donned by landowners. Ashes, dung, and the urine of cows are the in-

dispensable requisites of the toilet. The item last name affects the nose of the stranger rather unpleasantly when he makes use of any of their milk vessels, as, according to a regular African habit, they are washed with it, probably to compensate for a lack of salt. . . . Entirely bare of clothing, the bodies of the men would not of themselves be ungraceful, but through the perpetual plastering over with ashes they assume a thoroughly diabolical aspect. The movements of their lean bony limbs are so languid, and their repose so perfect, as not rarely to give the Shiluks the resemblance of mummies; and whoever comes as a novice amongst them can hardly resist the impression that in gazing at these ash-gray forms he looking upon mouldering corpses rather than upon li beings."

As to the Bahr-al-Ghazal, Schweinfurth opin the volume of water brought down by th River to swell the Nile is still an unsolve "In the contention as to which stream is rank as first born among the children of the river god, the Bahr-al-Ghazal has apparently a claim in every way as valid as the Bahr-al-Jabl (Mountain Nile). In truth, it would seem to stand in the same relation to the Bahr-al-Jabl as the White Nile does to the Blue. At the season when the waters are highest the inundations of the Ghazal spread over a wide territory; about March, the time of year when they are lowest, the river settles down in its upper section into a number of vast pools of nearly stagnant water, whilst its lower portion runs off into divers narrow and sluggish channels. These channels, overgrown as they

look with massy vegetation, conceal beneath (either in their open depths or mingled with the unfathomable abyss of mud) such volumes of water as to be in some places nearly unsoundable by moderate lengths of pole or cord."

At the commencement of the real Bahr-al-Ghazal, where that broad lake-like stream is formed by the confluence of the Dyur (Jur) and other rivers, there was, before the uprising of the Mahdi and the consequent devastation of the Sudan, a large trading-station originally founded by the Nubian, Arab, and Coptic merchants of Khartum. This was named Mashra-ar-Rak — transcribed, in the mincing Turkish fashion, "Meshra-er-Rek." Here merchants and travellers generally started on their land journeys into the Nyam-nyam countries. Miss Tinne had paused a long time at Mashra-ar-Rak, and it was supposed that there her expedition had contracted the severe malarial fevers which eventually caused the death of five out of its nine Europeans. Mashra-ar-Rak was situated on a lake-like swelling of the Bahr-al-Ghazal, which expanse is partly covered by four wooded islands. All the surroundings of this lake-like estuary are very low and swampy. In all directions the eyes rest on jungles of papyrus, with the exception of the few trees on the islands aforementioned.

A short time before Schweinfurth reached this place with its dismal record of disease amongst Europeans, he heard that a French predecessor had died not far from the Bahr-al-Ghazal. This was Le Saint, a French

naval officer, who had been despatched by the Paris Geographical Society to make that extended exploration of the whole of the region of the Bahr-al-Ghazal which Fate had destined Schweinfurth himself to accomplish.[1]

Schweinfurth's own expedition had to be conducted in a most economical and unobtrusive fashion. He made most of his great journeys between the Bahr-al-Ghazal and the Congo water-shed on foot. Remembering that his expedition was purely scientific, and was financed by a scientific society, he very wisely concerned himself with no question of ethics or reform such as had hitherto caused all English explorers of these regions to be hindered as much as possible by Nubians, Arabs, and Turks. He was not there to undertake crusades, but to make collections. He thus won and retained the friendship and confidence of men of all colours, some of them, no doubt, great ruffians, but all made equally to subserve the interests of science by affording sympathetic support to one of the greatest and most genial of African explorers, Georg Schweinfurth. Schweinfurth was no sympathiser with the slave-trade and the barbarities to which it gave rise. "Throughout my wanderings," he writes, "I was for ever puzzling out schemes for setting bounds to this inhuman traffic. On one point (i. e. the abolition of

[1] France was dogged with continual ill-luck in her attempts to open up and explore the Nile basin. Expedition after expedition and explorer after explorer, despatched directly or indirectly under French auspices, failed (generally by death from fever) in grasping the great discoveries which fell to more fortunate Germans and Englishmen.

the slave-trade) all are unanimous,—that from Islam no help can be expected, and that with Islamism no pact can be made." His reports on the behaviour of the slave-traders did a great deal to bring about the abolition of this devastation by Gordon Pasha and his officers some years later.

CHAPTER XVIII

SCHWEINFURTH'S ACHIEVEMENTS AND DESCRIPTIONS

DR. SCHWEINFURTH spent three years exploring the regions of the Bahr-al-Ghazal, and returned to Europe in the autumn of 1871. During the course of his journeys he took no observation of latitude or longitude, but kept a most accurate dead reckoning. He laid down with astonishing accuracy much of the Bahr-al-Ghazal, of the courses of the Rōl, the Roah and its affluents, the Dogoru and Tondi, the Jur, Nyenam, Ji, Biri, Kuru, and Dembo tributaries of the Bahr-al-Ghazal, the upper waters of the Sue and Yabongo; lastly, he crossed the Nile watershed and entered that of the Congo, thus discovering the upper waters of the Welle River and its many affluents. Here he thought that he had entered the basin of the Shari River, but, as we know now, he had discovered the head streams of that most important affluent of the Congo, the Welle-Ubangi.

Dr. Schweinfurth gave the first true and particular account of the Congo Pygmies under the name of Akka, whom he found in the thickly forested region on the northern limits of the Congo watershed; he

drew our attention to those remarkable "gallery" forests,[1] and to the existence in the Nile basin of the chimpanzee, the gray parrot,[2] and other West African types. He discovered a slightly civilised race on this Congo-Nile water-parting — the Mangbettu — speaking a language which has no known relations, but leading a life singularly similar to that of the other semi-civilised Negro states of Unyoro and Uganda. The Mangbettu and their chiefs exhibit traces of former intermixture with Hamitic people. Dr. Schweinfurth also told us much we did not know before as to the Nyam-nyam,[3] the Bongo, and the Dinka tribes.

Schweinfurth possessed many qualifications for writing a book on African exploration. He was a scientific botanist, and knew a great deal of zoölogy. He had a quick ear for languages, and wrote down vocabularies of the important dialects. He collected invaluable notes on ethnology and anthropology. Although he was unable to do much photography, he was a skilled draughtsman, and his beautiful drawings are apt illustrations of his book. As regards the value of the information he collected, no such book as Schweinfurth's had appeared before, with the exception of Barth's classical work on the Western Sudan; but Schweinfurth's book was far

[1] They were, however, first mentioned by Piaggia.

[2] Heuglin forestalled him, perhaps, as regards the Gray Parrot.

[3] These people do not call themselves by the designation. It is one applied to them by the Arabs as a nickname, indicating the gusto with which they eat human flesh. They themselves acknowledge several names, such as Azande and Makarka.

ahead of Barth's in the matter of illustrations. These are as accurate as photographs, and yet much clearer. More than any previous traveller who had written on Africa, Schweinfurth is able to bring to our mental vision the different aspects of vegetation. He describes the tree-lilies (*Dracænæ*), with their bouquets of leaves like bayonets and their short, woody stems, the Candelabra euphorbias, the coral red aloes, the dragon-like *Bucerosia,* the leathery *Sanseviera,* and the gigantic clumps of the grass-green *Salvadora,* which characterise the northern flanks of Abyssinia.

In another place he describes acacia groves on the right bank of the White Nile above Khartum, with their enormous white bulbous thorns,[1] and their oozy lumps of amber-coloured gum. He notes the remarkable fact that little, if any, of the floating vegetation of the Upper Nile reaches Egypt. He describes the jungles of papyrus, "fifteen feet high," the floating grass barriers and the sudd (which he calls *sett*); the *suf* reeds, the water-ferns, the floating *Pistia stratiotes* (like a pale-green lettuce), the duck-weeds, the beautiful white and blue waterlilies. When he reached the vicinity of the water-parting between the Nile and the Congo, he had entered the forest region of West-Central Africa. This mighty tropical forest has no great reverence for geographical boundaries, but overlaps in several places the watershed of the Nile, while

[1] Pierced by the ants so that they become whistles played on by the wind.

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"PAPYRUS, FIFTEEN FEET HIGH."

of course it exists in patches in the basins of the Shari, the Benue, the Niger, and on the coast belt of Upper and Lower Guinea. Perhaps the most marked feature of it, the clearest indication of its West African nature, is the existence of the climbing *Calamus* palm, which is never found in typical East Africa. The wonderful "gallery"[1] forests are described as follows:—

"Trees with immense stems, and of a height surpassing all that we had elsewhere seen (not even excepting the palms of Egypt), here stood in masses which seemed unbounded, except where at intervals some less towering forms rose gradually higher and higher beneath their shade. In the innermost recesses of these woods one would come upon an avenue like the colonnade of an Egyptian temple, veiled in the leafy shade of a triple roof above. Seen from without, they had all the appearance of impenetrable forests, but, traversed within, they opened into aisles and corridors which were musical with many a murmuring fount. Hardly anywhere was the height of these less than seventy feet, and on an average it was much nearer one hundred; yet, viewed from without, they very often failed to present anything of that imposing sight which was always so captivating when taken from the brinks of the brooks within. In some places the sinking of the ground along which the gallery-tunnels ran would be so great that not half the wood revealed itself at all to the contiguous steppes, while in that wood (out of sight as it was) many a 'gallery' might still exist."

[1] First of all revealed to our notice by the Italian explorer, Piaggia, who succeeded Miani and preceded Dr. Schweinfurth.

Most of these gigantic trees, the size of whose stems exceeds any European forest growth, belong to the order of the *Sterculiæ, Boswelliæ, Papilionaceæ, Rosaceæ*, or *Cæsalpiniæ;* to the *Ficaceæ*, the *Artocarpeæ*, the *Euphorbiaceæ*, and the varied order of the *Rubiaceæ*. Amongst the trees of second and third rank are a few *Araliacea*, large-leaved figs, brilliant-flowered Spathodeas, Combretums, and Mussændas, as well as innumerable other rubiaceous or papilionaceous plants. There is no lack of thorny shrubberies; "and the *Oncoba*, the *Phyllanthus*, the *Celastrus*, and the *Acacia ataxacantha*, cluster after cluster, are met with in abundance." "Thick creepers climbed from bough to bough, the *Modecca* being the most prominent of all; but the *Cissus*, with its purple leaf, the *Coccinea*, the prickly *Smilax*, the *Helmiæ*, and the *Dioscoreæ*, had all their part to play. Made up of these, the whole underwood spread out its ample ramifications, its great twilight made more complete by the thickness of the substance of the leaves themselves."

Down upon the very ground, again, there were masses, all but impenetrable, of plants (mainly *Zingeberaceæ* or else Arums) growing large gorgeously painted leaves which contributed to fill up the gaps left in this mazy labyrinth of foliage. First of all there were the extensive jungles of the *Amomum* and the *Costus*, rising full fifteen feet high, and of which the rigid stems (like those of stout reeds) either bar out the progress of a traveller altogether, or admit

A Path through the Forest.

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him, if he venture to force his way among them, only to fall into the sloughs of muddy slime from which they grow.

"And then there was the marvellous world of ferns, destitute indeed of stems, but running in their foliage to some twelve feet high. Boundless in the variety of the feathery articulations of their fronds, some of them seemed to perform the graceful part of throwing a veil over the treasures of the wood; and others lent a charming contrast to the general uniformity of the leafy scene. High above these there rose the large, slim-stemmed *Rubiaceæ (Coffeæ)*, which by regularity of growth and symmetry of leaf appeared to imitate, and in a measure to supply the absence of, the arboraceous ferns. Of all the other ferns the most singular which I observed was that which I call the elephant's ear. This I found up in trees at a height of more than fifty feet, in association with the *Angræcum* orchis and the long gray beard of the hanging *Usnea*."

Whenever the stems of the trees failed to be thickly overgrown by some of these different ferns, they were rarely wanting in garlands of the crimson-berried pepper. Far as the eye could reach, it rested solely upon green which did not admit a gap. The narrow paths that wound themselves partly through and partly around the growing thickets were formed by steps consisting of bare and protruding roots which retained the light, loose soil together. Mouldering stems, thickly clad with moss, obstructed the passage at wellnigh every turn. "The air was no longer that of the sunny steppe, nor that of the shady grove; it

was stifling as the atmosphere of a palm-house. Its temperature might vary from 70° to 80° Fahr., but the air was so overloaded with an oppressive moisture exhaled by the rank foliage that the traveller could not feel otherwise than relieved to escape."

In the second volume of his work Schweinfurth adds: —

"The cumbrous stems are thickly overgrown with wild pepper, and the spreading branches are loaded with bead moss (*Usnea*) and with that remarkable lichen which resembles an elephant's ear. High among the boughs are the huge dwellings of the tree-termites (white ants). Some stems already decayed serve as supports for immense garlands of *Mucuna* (a bean), and overhung by impenetrable foliage, form roomy bowers, where dull obscurity reigns supreme. Such is the home of the chimpanzee."

Schweinfurth might have extended his researches further into the unknown but for a disastrous camp-fire in the Dyur country, which destroyed the greater part of his collections, journals, drawings, and instruments. Eventually, with such of his collections as he was able to save from the conflagration, Schweinfurth turned his steps northward again, and reached Europe in 1871. He subsequently did much to increase our knowledge of the botany of Abyssinia and Arabia, but never resumed the rôle of African explorer.

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SCHWEINFURTH'S MAP.

CHAPTER XIX

STANLEY CONFIRMS SPEKE

DR. SCHWEINFURTH evidently shared Burton's opinions on the subject of the Victoria Nyanza. Speke's great discovery may be said to have reached its low-water mark of depreciation in the map issued in 1873 to illustrate Schweinfurth's book, "The Heart of Africa." On this map a fairly correct estimate of the shape and area of the Albert Nyanza is given, together with some hint of the abrupt commencement of the Congo watershed west of Lake Albert. But the mountainous character of Unyoro is greatly exaggerated, and the area of the great Victoria Nyanza is taken up by five lakes and lakelets. Speke was dead, and Grant was tired of asseverating that the Victoria Nyanza was one huge continuous sheet of water.

In 1873, just as Dr. Schweinfurth's book was being published, Henry Moreton Stanley, an Americanised Welshman, had returned to London from the discovery and relief of Dr. Livingstone. Soon after his return arrived the news of Livingstone's death. The sorrow over this loss, and enthusiasm at the half-finished discoveries on the great mysterious river

which Livingstone believed to be the Nile and everyone else the Congo, caused the "Daily Telegraph" and the "New York Herald" to unite in furnishing funds for a great expedition which should attempt to clear up many African problems. This expedition Stanley (who therefrom rose to be the greatest of African explorers) commanded.

Starting from the coast opposite Zanzibar, whence so many expeditions had set forth since Maizen[1] and Burton had made the first attempts, Stanley travelled by the Unyamwezi route to the Victoria Nyanza, the south shore of which he reached at the end of February, 1875. On the 8th of March in that year Stanley (having put together a boat which he brought in sections, and which he named the *Lady Alice*) started—accompanied by eleven of his men—on a most adventurous voyage along the eastern and northern shores of the lake. He coasted and named the important south-eastern arm of the Victoria Nyanza, which is known as Speke Gulf. Passing rather hurriedly along the northeast coast of the lake, he made one great blunder, in that he overlooked the very narrow entrance to Kavirondo Bay (which is almost a separate lake), and created instead a broad northern gulf which he called Ugowe Bay. Ugowe Bay actually is the native name of quite a small shallow inlet on the Uyoma coast. Stanley skirted at some distance the much indented shores of Busoga, passed through what is now

[1] A gifted French explorer who attempted to forestall other expeditions in discovering the Central African lakes. He was murdered about a hundred miles inland from Zanzibar.

known as Rosebery Channel, and so on up Murchison Gulf to the native capital of Uganda, then called Rubaga (now known as Mengo). Here he had a splendid reception from Mutesa, and here he met Édouard Linant de Bellefonds,[1] a Belgian in the Egyptian government, who had been sent by Gordon Pasha to report on the state of affairs in Uganda.

Mutesa having agreed to send a large fleet of canoes to transport all Stanley's expedition to Uganda, Stanley then resumed his circumnavigation of the lake, following the western shore. Passing between the mainland of Karagwe and the little island of Bumbiri, he was fiercely and unprovokedly attacked by the natives of that island, who were a savage people ruled over by light-coloured Bahima chiefs. Narrowly escaping disaster, he rushed through the opposing savages, got into the *Lady Alice*, and his men paddled off with boards which they tore up from the bottom of the boat. Having rejoined his expedition, which he had left at a place called Kagehi, near to the modern German station of Muanza, Stanley made one more blunder in his configuration of the lake (which he was the first to set right years afterwards). Deceived by a chain of islands, he curtailed the Victoria Nyanza of its southwestern gulf, which extension of the lake Stanley subsequently named after Emin Pasha.

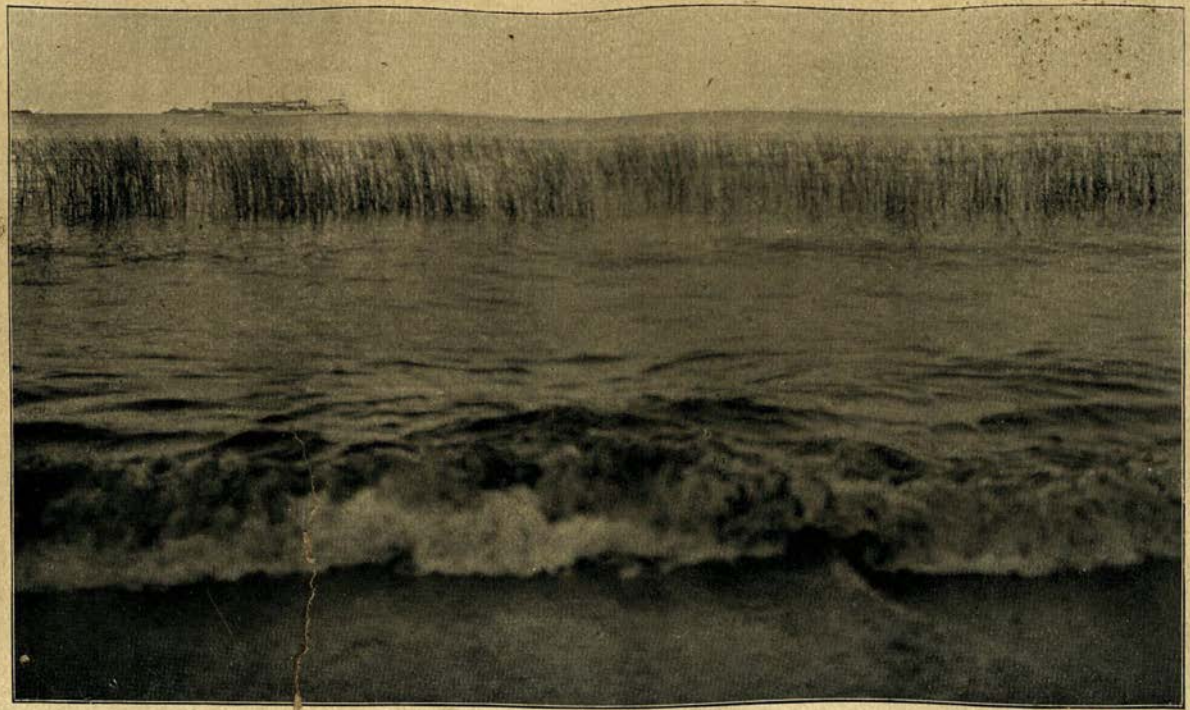
Reinforced by Mutesa's fleet of canoes, Stanley's

[1] Younger brother of Adolphe Linant, an early Nile explorer of 1827 and 1828.

entire expedition was saved the long march through the Hima kingdoms to the west of the Victoria Nyanza. But on his return journey to Uganda he was obliged to stop and give a severe lesson to the Bumbiri islanders. These warlike people barred the passage with their canoes. Stanley had been warned of this opposition by the natives of Iroba on the mainland. Stanley seized the king and two chiefs of Iroba as hostages, who should negotiate a peace between himself and the king of Bumbiri. These hostages caught for him the king's son. At this moment a large reinforcement of Baganda canoes arrived, and volunteered to go to Bumbiri and negotiate. But they were attacked, and driven off with some loss. Stanley, therefore, was obliged to inflict punishment. On the 4th of August, 1875, he attacked Bumbiri, and drove its natives to the interior of the island. The expedition then pursued its way along the west and north coasts until they entered Napoleon Gulf and arrived at the Ripon Falls, where the Nile leaves the lake. Here they found Mutesa encamped with a large army, engaged in one of his periodical wars with Unyoro.

Stanley not only ascertained the approximate area and shape of the Victoria Nyanza, but he was able to define with some approach to accuracy its principal islands and archipelagoes. After his journey there was no longer any doubt as to Speke's great discovery. The question was settled once and for ever.

Leaving Uganda in December, 1875, Stanley accompanied an expedition sent by Mutesa to the coun-



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THE VICTORIA NYANZA: UGANDA GOVERNMENT STEAMER IN THE OFFING.

tries then governed by the Banyoro at the base of Ruwenzori. Amazing to relate, Stanley was actually encamped under the Ruwenzori range (called, by the Baganda, Gambaragara), and yet was unaware of the importance of his discovery. He guessed that the mountain in front of him might be from fourteen to fifteen thousand feet high, and he called it Mount Edwin Arnold. What is so extraordinary about the matter is that he relates (as though he disbelieved them) the stories of the natives to the effect that white stuff and intense cold characterised the upper parts of this mountain range, yet he evinced little or no curiosity to ascertain the truth of these statements. Of course at the time of his visit all the thirty miles of snow and glaciers were concealed under heavy clouds.

From the vicinity of Ruwenzori the party made its way to Lake Dweru, which Stanley named Beatrice Gulf. This he learned from the natives was (as it is) but a loop of a much larger lake. Years afterwards Stanley was to realise that he had discovered a portion of Lake Albert Edward. Quitting these regions of mysterious lakes and mountains, he journeyed much more prosaically past the volcanoes of Mfumbiro and the Hima kingdoms of Karagwe to Lake Tanganyika, which he reached at Ujiji on its northeast coast. On this portion of the journey Stanley added a good deal to our information regarding the ultimate source of the Nile, the Kagera, though he was somewhat misled by native information, and

perhaps by exaggerated swamps, into the creation of a non-existing lake, which he called the Alexandra Nyanza. His subsequent route across Africa from Tanganyika to the mouth of the Congo does not concern the present narrative.

One interesting result of Stanley's explorations of the Victoria Nyanza, Uganda, and Unyamwezi was that Mr. (now Sir Edwin) Arnold[1] was inspired to propose a Cape-to-Cairo overland telegraph wire to pass via the Zambezi, Lakes Nyasa and Tanganyika, to Uganda and the Egyptian Sudan, thereby forestalling both Cecil Rhodes and the author of this book in the advocacy of a continuous line of British communications between South Africa and Egypt.

It has been mentioned that Stanley's letter to the "Daily Telegraph," summoning missionaries to the court of Mutesa, decided the fate of Uganda. This letter met with an immediate response, and in 1876 two parties of English missionaries were sent out by the Church Missionary Society. The Rev. G. Lichfield, Mr. C. W. Pearson, and Dr. R. W. Felkin were despatched by the Nile route. They travelled from Suakin to Khartum, and thence, by the help of Gordon Pasha, to the Albert Nyanza and Uganda. The other half of the missionary party (Lieutenant Shergold Smith, R.N., the Rev. C. T. Wilson, and, amongst others, Alexander Mackay, a Scottish engineer) made the journey by way of Zanzibar and Unyamwezi.

[1] In a pamphlet written in conjunction with Mr. Kerry Nichols and Colonel J. A. Grant, published in 1876, by William Clowes.

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STANLEY'S IDEA OF THE VICTORIA NYANZA, 1880.

Some of these missionaries were detained at the south end of the Victoria Nyanza. Lieutenant Shergold Smith — a man of great promise — journeyed across the lake in a boat and reached Uganda; but soon after his return to the south end of the lake he was killed in an attack made by the natives of Ukerewe (Bukerebe) on the Arab traders. Leaving Mackay, Lichfield, and O'Neil in Uganda, C. T. Wilson and R. W. Felkin decided to return to Europe, taking with them envoys whom Mutesa wished to send to England. On their return journey they were greatly troubled by the sudd, which then — as frequently before and since — practically blocked the navigation of the main Nile. They therefore made a very interesting overland journey through Darfur and Kordofan, and thence back into Egypt.

CHAPTER XX

GORDON AND HIS LIEUTENANTS. — JUNKER AND THE NILE-CONGO WATER-PARTING

IN 1874 Colonel Purdy and Colonel Colston (Englishmen) were despatched by the Egyptian government respectively into Darfur and Kordofan for surveying purposes. By their expeditions a good deal of the country along these half-dry affluents of the Bahr-al-Arab and the water-parting between the Shari and the Nile was explored and made known. Their work was added to in some respects (1875–1876) by Sidney Ensor, a civil engineer, who surveeyed the route for a railway from Wadi Halfa to Al Fasher, the capital of Darfur.

The energetic work undertaken by Sir Samuel Baker of suppressing the slave-trade in the Equatorial Province of the Egyptian Sudan was carried much further by the celebrated Charles Gordon, who was destined to die at Khartum under circumstances conferring on him lasting fame. Gordon Pasha (as he subsequently became) had, as it is hardly necessary to state, been an engineer officer. It was thought that his appointment to the supreme government of the Egyptian Sudan (an appointment which Baker had not

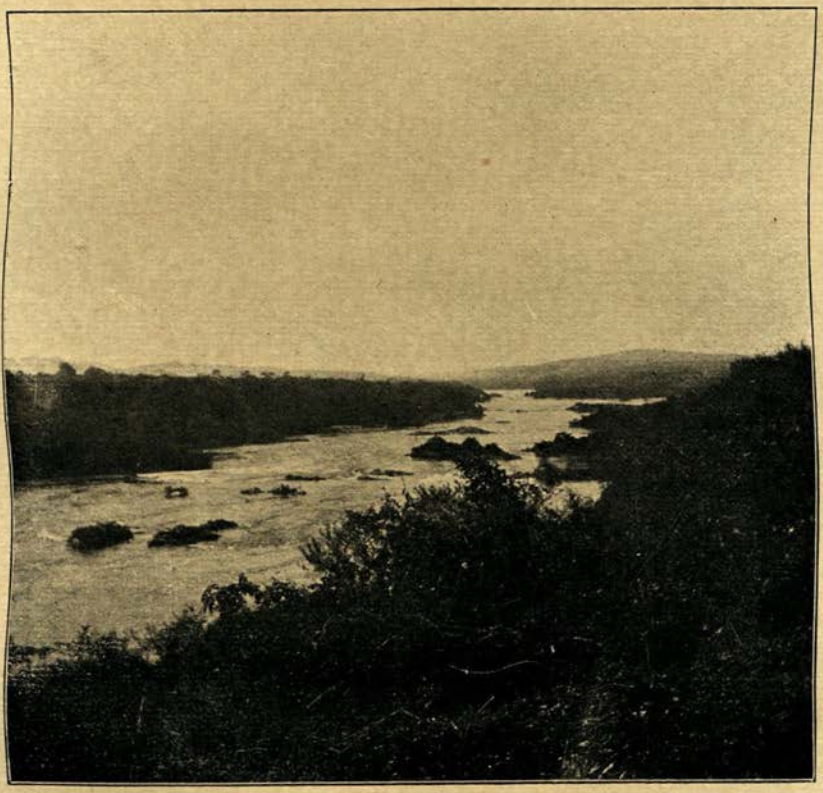
held, since he worked with an Egyptian Governor-General at Khartum) would — as it did — materially assist the improvement of communications. Gordon made an interesting survey of the country between Suakin and Berber on the Nile, and together with Lieutenants Watson and Chippendall mapped the main Nile from Khartum to Gondokoro and Lake Albert. He also caused the circumnavigation of that lake to be effected.

Soon after Gordon had taken up the work begun by Sir Samuel Baker, a curious theory had been started concerning Lake Albert Nyanza. In those days, when so much personal feeling was very naturally imported into Nile exploration, and one great explorer vied with another, theories were often started by A to minimise the work of B or to exaggerate the results of A's own discoveries. It has been already recounted how Burton, piqued by Speke's great discovery of the Victoria Nyanza, which might have fallen to Burton's own lot had he been less crippled with fever, subsequently strove to prove the non-existence of that lake as a continuous sheet of water. Speke in the most wonderful manner had not only discovered the Victoria Nyanza, but had, by the collection of native information and the deductions he drew therefrom, made, on the whole, a remarkably accurate forecast of the Nile system in the region of the equatorial lakes. He had put Lake Albert on the map, merely from report, in a shape and position closely in accordance with actuality. Not, however, being able to visit this lake him-

self, he had handed the task over to Sir Samuel Baker, who had discovered the Albert Nyanza, but had not been able to ascertain its area and shape. Both Speke and Baker, however, assumed that the Victoria Nile entered Lake Albert, and quitted that lake as the main stream of the White Nile. Neither explorer, however, nor most that came after them, could state positively that they had mapped the Victoria Nile along its whole course from the Ripon Falls to Lake Albert, nor had they traced the course of the Nile from Lake Albert northward to Gondokoro. Therefore in the early seventies some theorist had started the ingenious idea that Lake Albert belonged either to the system of the Congo or the Shari, and that its waters drained away by an unknown river at the south end, or else by an outlet to the north, which was not the Nile, as generally assumed, but a river which flowed westward to the unknown. The discovery about this time of Lake Kioga further confused notions about the Nile system, and it was thought that the Victoria Nile discovered by Speke did not enter Lake Albert, but in some tortuous way joined the Asua, and so flowed on past Gondokoro, leaving Lake Albert altogether out of its system.

To settle these doubts, Gordon resolved to despatch Romolo Gessi,[1] who was then little more than a steamer engineer, though, having been the mate of a

[1] Romolo Gessi was a Levantine Italian, born at Constantinople in 1831, who had gradually drifted into the employment of the Egyptian government. He became a Pasha after Gordon's departure from the Sudan in 1880.



[*Face page* 232.

THE VICTORIA NILE FLOWING TOWARDS LAKE KIOGA.

Mediterranean steamer, he was able to take astronomical observations. Gessi was therefore instructed to circumnavigate Lake Albert. This task he carried out in 1876. He ascertained positively that the Victoria Nile entered Lake Albert and left it again, and he connected his rough survey of the Albertine Nile with the work which was being carried on up stream from Gondokoro by two English engineer officers in Gordon's employ, Lieutenants Watson[1] and Chippendall. In 1877 Colonel Mason (an American) took advantage of the first steamer being placed on Lake Albert to make a survey rather more careful than that of Gessi, but neither of these explorers ascertained the existence of the Semliki River or of the snow-range of Ruwenzori, though it is said that in some of Gessi's private letters mention was made of a strange apparition "like snow-mountains" in the sky, which had appeared to some of his men at the south end of Lake Albert, — a remark that attracted no attention at the time. Gessi also records having seen the mouth of a large river at the south end of Lake Albert, but it never seems to have occurred to him that this river was probably of the greatest geographical interest.

Nevertheless, when Gessi returned to Khartum to report the result of his Albert Nyanza explorations to Gordon, the latter exclaimed, "What a pity you are not an Englishman!" This remark is supposed to have

[1] Now Colonel Watson, R.E. In 1874–1875 Lieutenant C. M. Watson, accompanied by Lieutenant Chippendall, made an admirable survey of the main Nile from Khartum to Gondokoro, and later assisted Gordon in completing this survey up to Lake Albert.

been made from pique that the two English officers despatched by Gordon (Watson and Chippendall) had not arrived in time to accomplish what a Levantine Italian had successfully performed. Gessi was already somewhat offended, because he considered that he had done an excellent piece of work, and he had only received as a reward a present of a few hundred francs and the decoration of the Mejidieh, third class. He therefore flung his fez at Gordon's feet and tendered his resignation. He journeyed to Italy, and was received with great distinction by the Italian Geographical Society at Rome, who presented him with their Gold Medal. He resolved, however, to return to work as an explorer, giving particular attention to anthropological and zoölogical researches. He engaged two Austrian-Italians — Giacomo Morch and Riccardo Buchta — to accompany him. Buchta deserves special notice, as he was the first careful photographer to visit the regions of the Upper Nile. His photographs of the native types and scenery of these countries taken between 1878 and 1882 are remarkably interesting.

Soon after Gessi's arrival in Egypt with all his stores, he was informed that a fire had broken out at Suez railway station, resulting in the complete destruction of all his goods, involving a monetary loss of something like twelve hundred pounds. He therefore returned to Italy, gave up the idea of exploring the Bahr-al-Ghazal, and instead resolved to start for the river Sobat, and work his way from the upper waters of that stream to the southern

regions of Abyssinia, where two Italians — Cecchi and Chiarini — were supposed to be wandering. His second expedition was financed by generous Italians and by the late King of Italy. He was accompanied by Dr. Pellegrino Matteucci, who was subsequently to cross Africa from east to west and die at the end of his journey.

Ernst Marno, a Viennese, had attempted, in 1870, to ascend the Blue Nile and then enter the country of the Galas to the south of it. After penetrating, however, as far as Fadasi, he was obliged to turn back, owing to the hostility of the people. The same obstacles turned back Gessi and his companions, and the expedition to Kaffa was given up. Returning to Khartum, Gessi was preparing to attempt the ascent of the Sobat when Gordon returned to his post, from which he had been absent, and invited Gessi to reenter the service of the Egyptian government. A serious revolt had occurred in the western part of the Egyptian Sudan. The great slave-trader, Zubeir, who had conquered Darfur, had become a danger to the Egyptian power. By dint of a wily invitation he was lured to Cairo, and once in Egypt, was prevented by the Khedive from returning to the Sudan. His son Suleiman, however, remained in Darfur, and attempted to rise against the Egyptian government. His attempt was frustrated by Gordon, who, however, pardoned him, and appointed him sub-governor of his country with a handsome salary. But in 1878 Suleiman openly espoused the cause of the Nubian

and Arab slave-traders whose devastations of the Bahr-al-Ghazal and the White Nile regions had been sternly suppressed by Baker and Gordon. Putting himself at the head of these disaffected people, Suleiman practically subjugated all the vast territory of the Bahr-al-Ghazal, and proclaimed his independence. Gessi proceeded with a small force on steamers to Lado, on the White Nile, where he met Emin Pasha. From this point he started for the Nyam-nyam country,[1] picking up on the way all the soldiers he could obtain from the various stations of the Sudan government. He found that Suleiman had proclaimed himself "Lord of Bahr-al-Ghazal, Rōl, and Makarka." At Dem Idris, in the most western part of the Bahr-al-Ghazal province, the great battle took place.[2] The people of the country were on the side of Gessi and the Egyptian forces, because of the incessant slave-raiding of Suleiman and his men. Gessi had entrenched himself and his small force, which at the outside amounted to seven thousand men, regulars and irregulars. He had several pieces of artillery that fired grape-shot. His entrenchments were assaulted by Suleiman's forces, and as the result of this attack Suleiman lost his flags, much of his ammunition, and most of his guns, together with several thousand of his men. Nevertheless, in spite of the

[1] A portion of this is often called Makarka.

[2] During this struggle Gessi was hard put to it for food, but he quaintly notes that "Of all our troops only the Makarka and Nyam-nyam remained healthy, owing to their feeding on human flesh. Directly after a battle they cut off the feet of the dead, and consumed these, together with their brains."

recovery of Egyptian prestige throughout the Sudan, Suleiman's power was not yet at an end. He gathered up more forces, and continued to attack Gessi. At last reinforcements arrived from the north which enabled Gessi to take the offensive. He captured stronghold after stronghold. In the spring of 1879 Suleiman was flying for his life with only a thousand men. Gessi destroyed almost all the strongholds of the slavers (some of which had existed for twenty-five years, and had devastated all the country around) in the province of Bahr-al-Ghazal.

Gordon Pasha had now come to Gessi's assistance, and established himself at Shakka on the Nile. He also invaded Darfur, reconquered that country, and prevented reinforcements reaching Suleiman from that direction. Eventually, after a hundred fights, Gessi succeeded in tracking Suleiman to his last refuge. At the time he had no more than two hundred men with him, whilst Suleiman had eight hundred. Taking the camp entirely by surprise, he tried a game of bluff, and sent a messenger to tell Suleiman that he had surrounded his place with a large force, and that resistance was hopeless. Suleiman therefore surrendered. Gessi tried him by court-martial, and had him shot in November, 1879. This ended the first of the great rebellions which menaced Anglo-Egyptian authority in the Sudan. Gessi was made a Pasha for his services, and Governor of the Bahr-al-Ghazal province. He slowly brought about peace among the distracted Negro tribes.

During all the operations undertaken by Gordon and Gessi a good many additions were made to the geography of the Bahr-al-Ghazal, the Bahr-al-Arab, and Darfur. After Gordon's departure from the Sudan Gessi found it impossible to work with the Egyptian Governor-General, Raiūf Pasha. He was also extremely ill. He therefore decided to return to Europe, but got no farther than Suez, where he died in 1881, having uttered several premonitions as to the possibility of another revolt. As a matter of fact, the Mahdi, who had just begun to make himself known as a rebel, did little more than carry on the reaction against the anti-slave-trading policy of the Anglo-Egyptian control. All the elements of Suleiman's revolt which had been destroyed by the splendid valour of Gessi and Gordon gathered round the new leader, and brought about that cataclysm which closed the area of Nile exploration for fourteen years.

Édouard Linant de Bellefonds, the Belgian official in Gordon's employment of whom mention was made in the previous chapter, and who had met his death at the hands of the Bari, was avenged by the American C. Chaillé-Long, who inflicted severe chastisement on the Bari and allied tribes at and around Gondokoro. Chaillé-Long was made a colonel by the Egyptian government. He was despatched by Gordon on a mission to Uganda to spy out the land; but owing to the intervention of Sir John Kirk from Zanzibar, the British government stayed the ambitious Khedive from attempting to include Uganda in the Egyptian Sudan.

Chaillé-Long added a little to our knowledge of the Victoria Nile, and gave a more detailed report of Lake Kioga than had been previously gleaned from the unscientific journey of Piaggia. He named this lake "Ibrahim." Chaillé-Long also travelled to the west of the Mountain Nile in the Nyam-nyam countries. His book ("Central Africa: Naked Truths of Naked People") is unfortunately marred by much incorrect information, and by the erroneous spelling of native names. Mutesa, the ruler of Uganda, is disguised as "M'tse;" Uganda becomes Ugunda, while preposterous plurals are invented for the people of Uganda and Unyoro, who are called the Ugundi, Unyori, etc. Chaillé-Long's one practical contribution to Nile exploration was the definite discovery of Lake Kioga, which had only been hesitatingly reported by the unlearned Piaggia.

Ernst Marno, the Viennese, surveyed a good deal of country west of Lado and the Mountain Nile, — the valley of the Yei among other rivers. Casati, an Italian officer, journeyed all over the lands of the Egyptian Sudan; but as he was an unscientific observer and lost all his journals in the troubles that followed on the Mahdi's revolt, his contributions to our knowledge of the Nile regions are practically worthless.

Dr. Gustav Nachtigal, one of the great African explorers, was born at Eichstadt, near Magdeburg, in Germany. He was despatched on a mission to Bornu by the King of Prussia. After years spent

with great advantage to science in the Sahara, round Lake Chad, and on the Shari River, he passed from Wadai into the Nile basin in the country of Darfur, and added somewhat to our geographical knowledge of this little known part of the Nile basin. Nachtigal reached Khartum at the end of 1874. Another German was to contribute his share to the opening up of the Nile basin. Dr. Wilhelm Junker was born at Moscow in 1840 of German parents, and was educated in Germany. He started for Egypt in 1875 with the intention of going to Darfur, but he spent some time examining the Libyan Desert and the curious blocked outlet of the Nile in the Fayum. After exploring the Atbara as far as Kasala and journeying thence across country to the Blue Nile, he travelled up the Sobat River to Nasr (a point at which all exploration of the Sobat stopped for many years), and then made his way to the White Nile and the Makarka (Nyam-nyam) country. His journeys through the Bahr-al-Ghazal province took him as far south as the Kibali or Welle River. After a visit to Europe with his collections and notes, he returned to the Welle and the Mangbettu country. He explored the Welle and its tributaries for some distance eastward and westward. Munza, the celebrated king of the Mangbettu, about whom Schweinfurth wrote so much, had been murdered by the Nubian slave-traders, and the country about the Upper Welle was much disordered. Junker reached the Nepoko River, which is an affluent of the Aruwimi. His journeys westward to the

[*Face page* 240.

NUĒR VILLAGE, SOBAT RIVER.

Welle River near its confluence with the Mbomu convinced him that this mysterious stream, the existence of which had first been reported by Miani and Potagos (a Greek trader), was after all the most northern affluent of the Congo, and not the Upper Shari. Junker's journeys were now interrupted by the news of the Mahdi's revolt.

Frank Lupton (Bey), a native of Essex, and once a mate on a small steamer plying between the Red Sea ports, had entered Gordon's service, and had become in time Governor of the Bahr-al-Ghazal province. Lupton added a good deal to our knowledge regarding the many affluents of the Bahr-al-Ghazal. He unhappily fell into the hands of the Dervishes, and eventually lost his life. Lupton managed to warn Junker of the outbreak, and the Russo-German traveller then made his way across country to Lado. There he stayed until the news arrived of the fall of Khartum. He then started for Uganda, crossed the Victoria Nyanza by the help of the English missionaries, and travelled to Zanzibar by way of Unyamwezi. Junker brought home with him the invaluable journals of Emin Pasha. His own two great works on the Nile basin are full of interesting information concerning the natives. He added much to our knowledge of the southern tributaries of the Bahr-al-Ghazal, but the chief value and glory of his work lay in the Congo basin and was concerned with the identification of the Welle-Kibali with the Ubangi. He also discovered the important northern tributary of the Welle, the Mbomu.

Junker's observations regarding natural history are not altogether trustworthy or accurate. His work in this respect is not to be compared with that of Schweinfurth or Emin. His books are badly illustrated, the drawings of beasts and birds being seldom recognisable, and the pictures of the people quite without any scientific value.

Two Italian officers, Massari and Matteucci, crossed the Nile basin just before the uprising of the Dervishes closed the Sudan to exploration for sixteen years. They passed through the northern frontier lands of Abyssinia, descended the White Nile, and ascended the Bahr-al-Ghazal, entered Darfur and excessively hostile Muhammadan borders of Wadai, which traversed unharmed. From Wadai they reached actually West Coast via Bornu and the Niger, but only to die the respectively in England and Italy soon afterwards. For daring and courage the journey was a marvel; for geography it was a nullity.

When the intensity of the Dervish rule was slackening, in the early nineties of the last century various Belgian officers, such as Lieutenant Van Kerckhoven, passed the Congo basin to the Bahr-al-Arab and the westernmost tributaries of the Bahr-al-Ghazal, and threw a little fresh light on the still mysterious hydrography of the Nile-Shari water-parting. They pointed the way, however, to Joseph Marchand and his associates. This gallant band of Frenchmen, in 1897, made their way from the Mbomu River (Congo

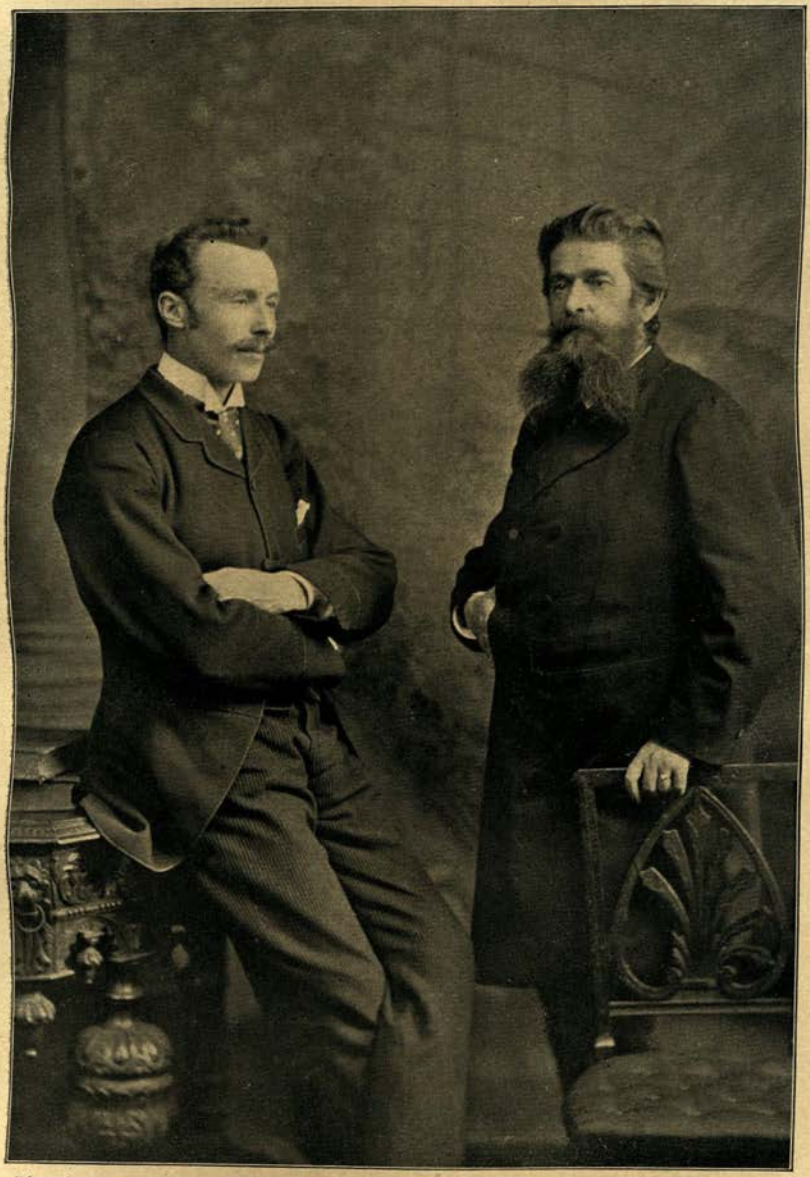


Photo by Maull & Fox.] [*Face page 242.*

JOSEPH THOMSON AND WILHELM JUNKER.

basin) down the Jur (Sue) to the Bahr-al-Ghazal and the White Nile, to face England at Fashoda. Marchand was accompanied, amongst other European officers and non-commissioned officers, by Lieutenants A. H. Dyé and Tanguedec. Tanguedec remained till 1900 on the Mountain Nile near the Bahr-az-Ziraf. Dyé gave, in 1902, some account of the explorations of the Bahr-al-Ghazal region undertaken by the Marchand expedition. The swamps which characterise the north-eastern part of the Bahr-al-Ghazal province render the definite mapping of the lower courses of its great rivers extremely difficult. Nevertheless, in the most systematic way, Marchand and his companions, in their little steam launch *Faidherbe*, surveyed the Sue or Jur (the longest stream flowing into the Bahr-al-Ghazal estuary), the Bahr-al-Arab, Bahr-al-Hamr, the Tonj, and Rōl.

The Bahr-al-Ghazal itself, from Mashra-ar-Rak downwards, was carefully surveyed, and many indications were found of the changes which have taken place since the days of its early explorers, though M. Dyé considers the sketch given by Lejean in 1862 as wonderfully correct in its general outlines.

After describing the ferruginous laterite plateau, which occupies the whole southern part of the Bahr-al-Ghazal province, as well as adjoining parts on the Congo basin, Lieutenant Dyé sketches the transition from this region, in which the streams flow in steep-sided valleys to the sea of swamps which lies along the ninth parallel. It is in about 7° 20′ north that

the first change occurs, the river-banks opening out and leaving between them an alluvial-flood plain, grassy and intersected by swamps, through which the river winds in a tortuous course, much choked by sand-banks. At the height of the rains this is entirely flooded. Still lower, the rocky valley sides entirely disappear, and the clayey banks sink below the mean water-level, the rivers becoming more and more narrow, and diminishing in depth until they are finally lost, each in its own belt of swamp, which forms a sea of grass, "Um Suf" [fleecy reeds], and papyrus.

Lieutenant Dyé, in his description, divides the estuary or drainage channel of the Bahr-al-Ghazal below Mashra-ar-Rak into three sections, each with its particular characteristics, the general trend of the estuary, however, below Mashra-ar-Rak being north, then northeast, and lastly east. The first section near Mashra-ar-Rak is at times of great width, as at the expansion known as Lake Ambady' or Ambach. There is much floating vegetation, and the channels frequently change with the winds. The depth is nowhere greater than thirteen feet in this section, which is distinguished as the region of lakes, lagoons, and reed-beds. In the second section, characterised by the growth of papyrus, the channel becomes much narrower, and reaches depths of twenty feet and more, though the figures given by former travellers seem somewhat exaggerated. The width becomes greater again in the last section, the banks of which are, as a rule, marked by ant-hills covered with brushwood.

[*Face page* 245.

A STERNWHEEL STEAMBOAT.

Forcing its way up the Jur (Sue) or main affluent of the Bahr-al-Ghazal.

Schweinfurth was mistaken in saying that the current of the Bahr-al-Ghazal is imperceptible, for, except in expansions and side branches, some movement can always be traced, and in the narrowest section it reaches a speed of one mile and a quarter an hour. A remarkable characteristic of the region is the small variation of water-level between the seasons, owing to the impounding of the water in the marshes. The maximum flood-level occurs on the Bahr-al-Ghazal in November and December, or two months later than that on the Sue, and various facts are quoted showing the slight effect which a rise in the upper courses of the streams has on the water-level of the swamp region.

Given their resources and the distance they had to traverse (from Loango on the West Coast to Fashoda on the Nile, and afterwards to Abyssinia and Somaliland via the Congo, Ubangi, Mbomu, Sue, and Bahr-al-Ghazal), the enemies they had to encounter, the allies they had to win, the privations they had to endure: the journey of Marchand and his companions is one of the most splendid feats in African exploration, and well deserves the admiration accorded to it in France and England.

CHAPTER XXI

JOSEPH THOMSON, MT. ELGON, AND KAVIRONDO BAY

IT will be remembered that a remarkable turn was given to Nile exploration when between 1849 and 1855 the German missionaries in the employ of the Church Missionary Society at Mombasa reported their explorations of inner East Africa,—explorations which revealed the existence of snow-mountains, and which gathered reports of great lakes in the interior. The outcome of these researches on the part of Krapf and Rebman was the despatch of Speke and Burton in search of the Nile lakes. We read that only Burton's excessive prudence prevented this first expedition to the lakes from starting inland from Mombasa and following the trading route right through the Masai country to the Victoria Nyanza. This was the route followed by Arab traders as far back as 1850. The terror caused by the Masai led to great exaggerations of the dangers of this direct journey. Its chief difficulty lay in the fact that owing to the ravages of the Masai and the somewhat waterless character of the intervening country, there were no inhabitants for a distance of some two hundred miles between the coast regions on the east and the fertile lands bordering the Victoria Nyanza on the west. The missionaries, German and

[*Face page* 247.

N.E. Corner of Victoria Nyanza (with Samia Hills in distance).

Near where Joseph Thomson struck the lake shore at the end of his long march, December, 1883.

English, who were settled at or near Mombasa, continued to collect information from Arab caravans. In this way news arrived of the existence of the Rift valley, with its chain of lakes, salt and fresh, and of some greater lake beyond called "Samburu," afterwards known as Lake Rudolf; also of the Nilotic Negroes in the country of Kavirondo, on the north-east coast of the Victoria Nyanza. Much of this information was industriously gathered up by a most excellent missionary, the late Mr. Wakefield,[1] who sent his notes and theories to an eminent geographer, E. G. Ravenstein. Mr. Ravenstein prepared this information for the use of the Royal Geographical Society, and in about 1880 had gathered together all that was known from surveys and reports into maps illustrating Eastern Equatorial Africa.

As the result of the interest these maps inspired, the Royal Geographical Society resolved, in 1882, to despatch on this search for a direct route to the Victoria Nyanza, Joseph Thomson, a very young and very brilliant African explorer, who had already performed a remarkable journey to lakes Nyasa and Tanganyika. Joseph Thomson left Mombasa in the spring of 1883, and after several checks and disappointments, finally crossed Masailand (Dr. Fischer, a German, had discovered the Rift valley and Lake Naivasha a year previously), settled at last the existence of the much exaggerated Lake Baringo, and

[1] Whose encyclopædic work on the Galas will soon be published. Mr. Wakefield died in 1902.

finally reached the northeast coast of the Victoria Nyanza, in Kavirondo Bay, on the borders of Busoga. So far as Nile exploration was concerned, the chief immediate result of Joseph Thomson's remarkable journey was to draw attention to Stanley's blunder about Ugowe Bay. But Thomson himself only made a step towards the delineation of this gulf; his work had subsequently to be finished by Mr. C. W. Hobley and Commander Whitehouse. He discovered Mount Elgon, however (previously alluded to by Stanley as Mount Masawa), and was, politically, the forefather of the Uganda Railway.

The present writer supplemented Thomson's work in the neighbourhood of the snow-mountain Kilimanjaro; and laid the foundations there of the British Protectorate of East Africa. Bishop Hannington followed in an attempt to repeat Thomson's journey to the Victoria Nyanza, and thus enter Uganda. The missionary bishop was murdered on the confines of Uganda, and his plucky enterprise added nothing to our geographical knowledge. Then came Count Samuel Teleki von Szek (a Hungarian) and Lieutenant von Höhnel (an Austrian naval officer) in 1887. Although the expedition led by these gentlemen never actually entered the Nile basin, it achieved the most important results of discovering lakes Rudolf and Stephanie, and thereby limiting the Nile basin on the southeast. Ernest Gedge and F. J. Jackson crossed what is now British East Africa in 1889–1890, and reached Elgon, the Victoria Ny-

Photo by Jamieson & Co.] JOSEPH THOMSON. [*Face page 249.*

were the direct
ork.

CHAPTER XXII

EMIN PASHA

THE remarkable man whose name is given to this chapter was a German Jew, — Eduard Schnitzer, — born in Silesia about 1830. Becoming a doctor of medicine, he gradually drifted to Austria and thence to Turkey, where he engaged in much medical service in the suite of high officials. To some extent he adopted the religion of Islam, and changed his name to Dr. Emin. Attracted by the mystery of Central Africa, he found his way to Khartum, and from being a mere medical practitioner, became a Bey in the service of the Egyptian government under General Gordon. He did a great deal to add to our knowledge of the eastern tributaries of the Bahr-al-Ghazal and the western tributaries of the Mountain Nile. He explored the Nile-Congo water-parting, and made very interesting notes on Unyoro, Uganda, and the Albert Nyanza. He also added considerably to our knowledge of the Latuka, Bari, and Acholi countries. Strange to relate, though he lived so much between 1877 and 1888 on the Albert Nyanza, he never once sighted the remarkable snow-range of Ruwenzori. This extraordinary omission may have been due to the fact that he was very short-sighted. He would,

therefore, not himself have noticed any remarkable appearance in the sky, and probably the Negroes and Turks around him were too dull-witted to draw his attention to the snow-peaks on the rare occasions on which they were visible. In travelling along the west coast of Lake Albert Nyanza, however, he discovered the Semliki River flowing into that lake, and called the river Dweru.[1] Emin Pasha's journals and letters, which were brought to England by Dr. Junker, were issued as a book in 1888. Regarding this compilation, it may be classed as one of the few great books that have ever been written about tropical Africa. It is full of concise and valuable information on natural [illegible], anthropology, languages, and geography.[2] [illegible] a very interesting description of the mountainous country of Lotuka (Latuka), and of the region to the east.

[illegible] received by Latome, "an elderly gentleman of slight and rather pleasing features, [illegible] of the nude and handsome

[illegible] crowd assembled in the yard, — [illegible] girls, the former with leather aprons, the [illegible] entirely nude; men of different districts, all armed [illegible] shields and spears, — the genuine Lotuka people,

[1] Dweru, like Nyanza, is a very common Bantu word which is applied equally to lake and river. It simply means "whiteness." With different prefixes it becomes Mweru, Jeru, and so forth.

[2] In giving extracts from this as from other works of Nile explorers the present writer often summarises. He also employs sometimes more modern spelling in scientific nomenclature to avoid puzzling the reader habituated to the most recent descriptions.

recognisable by their slight figures and long faces, — all nude, and adorned with iron ornaments, ivory rings on the upper arm, broad copper rings as necklaces, and helmets of shining brass or copper plates, surmounted waving ostrich plumes. Some of them wore caps ma of basket work. After our reception was over, we visit the summit of the hill, whence a splendid view is obtain extending from Mount Loligono in the Bĕr count northwards over the whole Lokoya range, to the we and to the high peaks of the Obbo Mountains, in th south and southwest, where the horns of Jebel Asal tower up, — so named on Baker's map, but called by the Bari "Ekara," and by the Lotuka "Chufal," — then away to the long lofty ranges of Molong and Killio, the defile leading to Tarangole, with its hills rising up like senti and finally the long range of Lafit, which closes th on the northeast, — a typical Alpine landscape.

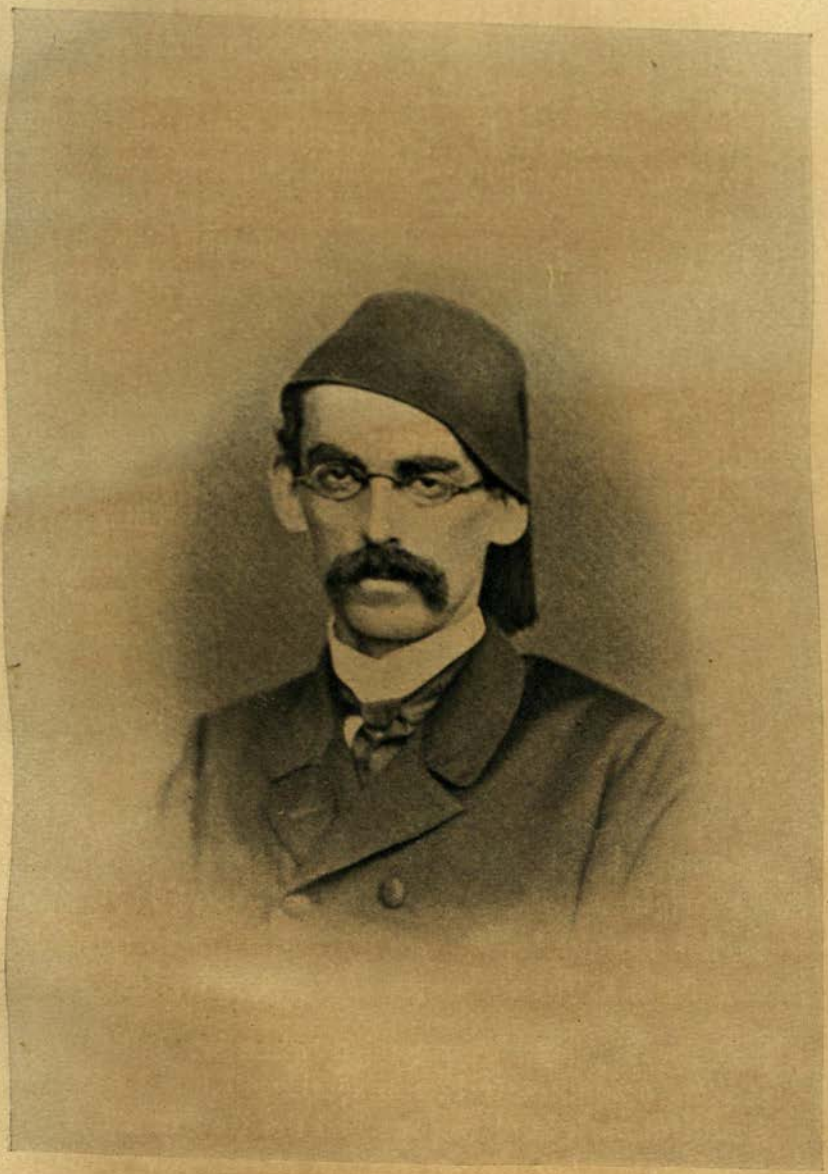
The Lotuka people, it might be menti similar in appearance and langua tribe, which is much farther so Mount Elgon. Both these in origin to the Masa styled Lotuka.[1]

Of the Lotuka country Dr. Emin w

"The sky was overclouded when we left Taking a southeasterly course along Khor Kos,[2] thr beautiful park land, we reached the ford in about half a hour. The *khor* was here about twenty-two yards broad, and full of yellowish water, which reached up to our

[1] Vide chap. ix. p. 107.

[2] This stream, joining others from farther east, enters the Mountain Nile near the bifurcation of the Giraffe River. — H. H. J.



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Dr Emin Bey

EMIN PASHA.

thighs, and flowed over a sandy, rocky bottom. We had a pleasant march over a good firm road, across sandy country covered with open wood, the ground being rather wet in some places; the predominance of acacias (*Acacia albida*, *A. mellifera*, and *A. campylacantha*) and *Balanites* gave a gray tone to the scenery. Khor Oteng, now very insignificant, is said to pour such large volumes of water into Khor Kos[1] in the rainy season that the passage is often rendered impossible for hours. The ford of Khor Kos is called Chuchur; a splendid forest of doleb palms (*Borassus*) yielding an abundance of odorous fruits, skirts the khor, copses of various other trees intervening. Large flat blocks of friable granite, with white streak[s] lie across the road that leads direct to the foot of the h[ill] of Loguren, which is about four hundred feet high. [The] summit is [cro]wned [with] dome-shaped huts of [the] villag[e]

Emin describes the Lotuka villages as being dreadfully dirty, in contrast to the Bari settlements, which are always kept scrupulously clean within, though their environments are filthy. Hundreds of rats and mice infest the Lotuka huts. These latter are built upon round substructures about four and one-half feet high, usually caulked and overlaid with mud. The huts are surmounted by bell-shaped roofs (sometimes peaked), which project considerably over the sub-tructures. A small doorway is left open, about two d a half feet high, which must, of course, be en-ed on all fours. The interior is kept fairly clean, is quite dark. The thatch is generally made of ; many huts are co s of the palm act,

Okkela in the Lotuka country was a paradise for a natural history collector like Emin. The belt of wood round this settlement was full of treasures. There were many Colobus monkeys, whose white dorsal mane and tail-tuft gleamed through the dark foliage, small families of them being led by white-bearded old males which gazed fearlessly at the stranger. Close by a brown baboon mother might be giving her offspring rough lectures on good manners, which, to judge from the howling, were not much appreciated; "tall, fox-coloured baboons, white on the under side,[1] were chasing one another along the tree-tops, and barking and yelping like hoarse dogs. A small mouse-coloured monkey with a black face, and quite unknown to me, skulked away through the thick bush; two varieties of *Funambulus* squirrels ran up and down the long tendrils of the creeping plants, and the graceful *Xerus leucumbrinus* squirrel roved about upon the ground. Small cats, ichneumons, rats, and mice had also found a comfortable shelter in the woods, and other creatures, quite unknown, to judge from the description, are said to haunt it, especially at night."

Birds were even more numerous and striking. "Gorgeous blue kingfishers (*Halcyon senegalensis* and *H. semicœrulea*) and beautiful bee-eaters (*Merops bullockii* and *M. albicollis*) were perched on the dry boughs waiting for insects; a large gray cuckoo, probably a new variety,[2] could be heard in the tree-

[1] Probably Emin refers to the lanky *Cercopithecus patas*.

[2] Really a plantain-eater — *Schizorhis* or *Gymnoschizorhis*. — H. H. J.

tops, as also the handsome *Cuculus capensis*, whose loud cry the Nile Negroes interpret by the word *lashakong* (my gourd), and a charming little falcon (*Nisus* sp.) joined them with a sharp chirp, which the natives call *lefit*, a happy imitation of its cry. Snow-white *Terpsiphone* and brilliant golden cuckoos (*Chalcites cupreus* and *C. clasii*) were swinging in the green leafy bowers, and cunning barbets (*Pogonorhynchus rolleti, P. diadematus*, and *P. abyssinicus*) came into sight for a moment, to disappear again directly like woodpeckers. In the thick copsewood *Bessornis heuglinii* flew off at my approach with a sudden cry of fear, and *Cichladusa guttata* sang as loudly, but was not quite so shy. An *Aedon* warbled its beautiful song among the thickest briars, and was accompanied by the tapping of numerous woodpeckers. I caught *Picus nubicus*, the rarer *P. minutus*, and another kind which I think is new; it closely resembles *P. schoensis*, and it is equally handsome."

Animal life abounded also in the open country of Lotuka, — a land covered with shrubs, with broad, grassy clearings and sandy flats. The ground was strewn with the shells of *Achatina zebra;* small lizards and snakes of various kinds — among them the rare *Typhlops* — glided over the sand, and larger snakes hissed frightfully and retreated. A concert of croaking frogs would arise from the reedy margins of the half-dry rivers, and on the sandy islands of the Kos enormous crocodiles were watching the children bathing close by. Herds of *Cobus leucotis* [1] grazed on the

[1] The white-eared Kob antelope. — H. H. J.

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RAPHIA PALMS BY A CENTRAL AFRICAN STREAM.

young grass; large wart hogs issued from holes in the ground. "They were," writes Emin, "no despicable antagonists, for they can make very good use of their huge tusks. Going further into the bush, I saw the elegant form of a wild cat stealing off with its tail in the air, and heard a loud growl from a leopard which disapproved of my presence. Lions were most plentiful."

A herd of zebras grazing on the fresh green grass is a pleasant picture, whether surrounded by their frolicking young or running away at a thundering gallop. One does not often meet with the scaly ant-eater, *Manis temmincki*, still less with the earth-pig (*Orycteropus æthiopicus*), but a fine example of the latter edentate having fallen into a pitfall, Emin was able to attest its presence in Nile land.

Emin's journeys in the region of the Bahr-al-Ghazal and along the water-parting between the basins of the Nile and the Congo added greatly to our knowledge of those countries. The forests in these regions he described as magnificent "gallery" woods, in which all the marvels of vegetation unfolded themselves before the enchanted gaze of the botanist. These forests border the streams, and exist only near to running water. The region, however, of immense unbroken forests, in which one may wander for hours without seeing a sunbeam, and where one hears the rain beating upon the summits of the trees without feeling a drop, commences only a little to the west of the Nyam-nyam (Zande) country. There is no doubt that much

of the Bahr-al-Ghazal region was originally quite covered with forests, to judge from the remains of virgin woods which still exist. The gradual disappearance of the forest is to be attributed to the comparatively thick population, the constant removal of villages and fields, and to the inroads of both axe and fire. Emin saw the remains of many a gigantic and magnificent forest-tree lying rotting on the ground, having been cut down, and given to decay because it spread too much shade over the crops. After many years of wandering among these regions, he was inclined to think that in ancient times the true Central African forest region, that is, the permanence of evergreen woods containing westerly species, extended much farther to the north than it does to-day. Towards the east of the Nyam-nyam country, as far as the district of Janda, he observed such West African forms as *Artocarpus* and *Anthocleista*, but he states that the valley of the Mountain Nile throughout its whole length, as far south as Lake Albert, is characterised by steppe vegetation, as is also the entire eastern region of the Nile basin.

CHAPTER XXIII

STANLEY DISCOVERS THE MOUNTAINS OF THE MOON AND LAKE ALBERT EDWARD. — THE END OF EMIN

TWO sets of circumstances now hindered further exploration of the Nile basin, — the revolt of the Mahdi, with the disasters that followed at Khartum; and the persecution of the Christians followed by civil war in Uganda. Emin Pasha was left to govern Equatoria for four years, cut off from all communication with Egypt. Dr. Junker, arriving with his collections and journals in 1886, aroused a great wave of enthusiasm in England and Germany. Stanley at once offered to lead a relief expedition to the Equatorial provinces of the Nile. The great prestige of this remarkable man made it impossible for any other candidate to enter the field in England. Many, however, were in favour of entrusting the expedition to Thomson, who believed in the practicability of conducting it by a direct route from Mombasa to Mount Elgon, and so across to the Nile. Whether he would have succeeded is a moot question, owing to the fierceness of the Nile tribes between Elgon and Gondokoro, and the jealousy and suspicion of Uganda and Unyoro; for the King of Uganda, having had his fears aroused as to European aggression, had already

caused Bishop Hannington to be murdered for repeating Thomson's journey to Busoga.

Stanley was precluded from following the old Unyamwezi route, owing to German jealousy. He decided, therefore, to strike at the Upper Nile by way of the Congo, and so found himself struggling through the dense forests of the Congo basin between the navigable waters of the Aruwimi and the cliffs of Lake Albert. This wonderful journey, which he took for the relief of Emin Pasha, resulted in the discovery of the real Mountains of the Moon [Ruwenzori], the complete course of the Semliki River, Lake Albert Edward, and the southwesternmost gulf of the Victoria Nyanza. Stanley added a great deal to our knowledge of the Congo Pygmies, who in this direction stray over into the Nile watershed; but his grand discovery on this occasion was Ruwenzori. On May 24, 1888, about five miles from Nsabe, on the grassy mountains to the southwest of Lake Albert Nyanza,

"while looking to the southeast and meditating upon the events of the last month, my eyes were directed by a boy to a mountain said to be covered with salt, and I saw a peculiar shaped cloud of a most beautiful silver colour, which assumed the proportions and appearance of a vast mountain covered with snow. Following its form downward, I became struck with the deep blue-black colour of its base, and wondered if it portended another tornado; then as the sight descended to the gap between the eastern and western plateaux I became for the first time conscious that what I gazed upon was not the image or semblance of a vast mountain, but the solid substance of a real one,

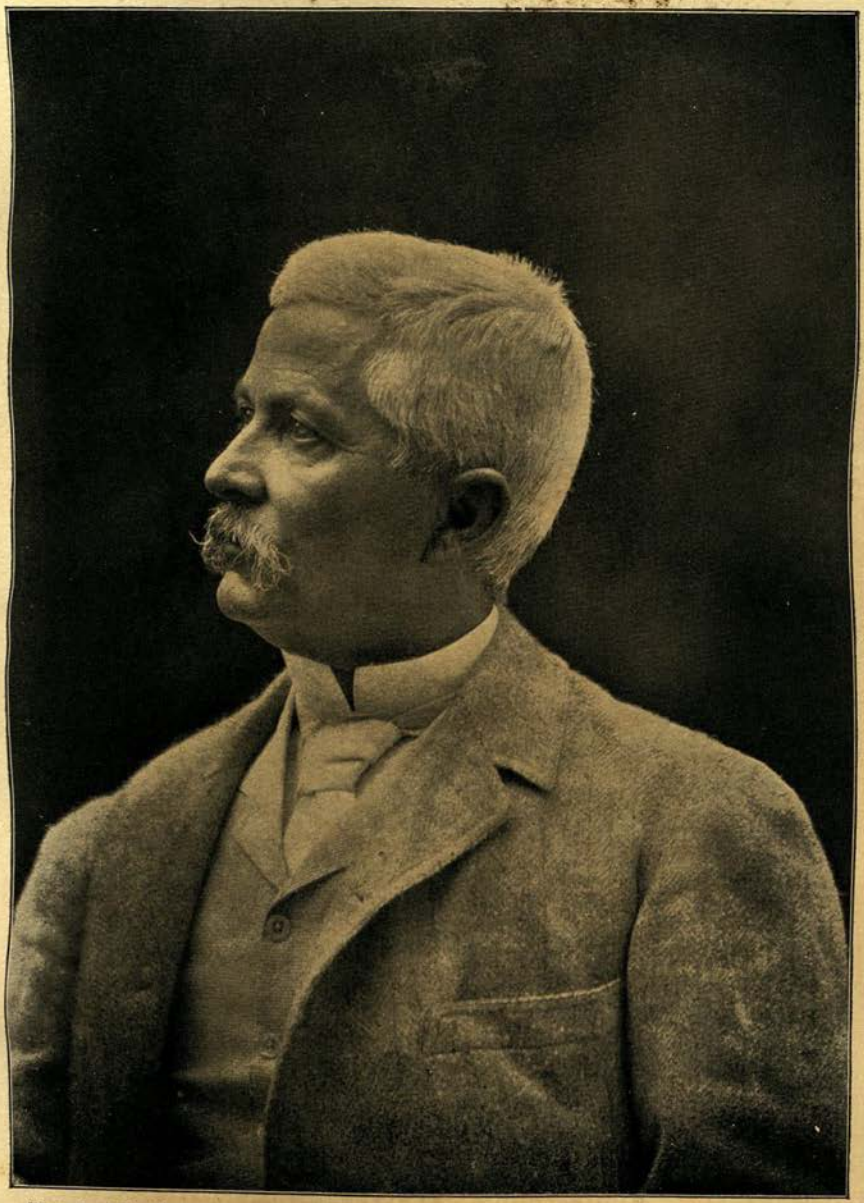

Photo by John Fergus.]

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SIR HENRY STANLEY, G.C.B.

with its summit covered with snow. . . . It now dawned upon me that this must be the Ruwenzori, which was said to be covered with a white metal or substance believed to be a rock, as reported by Kavali's two slaves."

This view was obtained from a distance of seventy miles, — about the distance of the chief snows of Ruwenzori from the south end of Lake Albert Nyanza. The constant haze rising from the Semliki valley no doubt keeps this mountain usually invisible from the waters of the lake. It is, therefore, not so surprising that it was not hitherto seen by the explorers of the Albert Nyanza, as it is that Stanley himself should have camped at the very base of this mountain for some days in 1875, and have been ignorant of its true character as the highest ground and the most completely snow-and-glacier-covered range in the whole of Africa. The name that he has given to it unfortunately does not completely correspond with the native pronunciation; it should be Runsororo.

The discovery of this snowy range was soon followed by the realisation of the Semliki River, another geographical name of Stanley's giving which it is most difficult to trace to any native source. (The Semliki, in fact, is never called by any native tribe "Semliki." It is known as Dweru, Nyanja, Ituri, Isango, and other Bantu terms indicating *lake* or *river*. When first discovered by Emin Pasha, a short time before Stanley's arrival, it was known as the Dweru.) This stream is really the Albertine Nile. Its existence had been surmised by Sir Samuel Baker

without much foundation (then) for his theory. Emin Pasha first noted it in 1884 as a feeder of Lake Albert. Stanley, in 1889, traced the Semliki up its course to its point of exit from Lake Albert Edward, which sheet of water he was the first European to discover. Albert Edward is connected by a narrow, winding channel[1] on the northeast with a somewhat extensive, shallow lake, usually known as "Dweru."[2]

Dweru was discovered by Stanley in 1875, and named by him Beatrice Gulf. Stanley now ascertained that the two lakes were connected. His expedition crossed the Kafuru, as the connecting stream is called, and entered the till then unvisited Hima kingdom of Ankole. Stanley's guess at the shape of the Albert Edward was incorrect, and it needed subsequent expeditions to give us a truer idea of the form and area of this sheet of water, the eastern shore of which still remains unsurveyed.

Passing through Ankole, Stanley reached the south-western extremity of the Victoria Nyanza, which he named Emin Pasha Gulf. On his journeys of circumnavigation in 1875, he had been deceived by a chain of islands into an incorrect limitation of the area of the Victoria Nyanza in this direction. He now realised that the lake extends much further to

[1] The Kafuru. This was re-examined by the author of this book. It is a narrow winding channel passing between high banks. In spite of the author's delineation of this feature in his book, "The Uganda Protectorate," map-makers still continue to draw it as a lake-like straight arm connecting the Albert Edward with Dweru.

[2] Dweru, as already explained, merely means a white surface or sheet of water.

SHORES OF THE VICTORIA NYANZA, NEAR EMIN PASHA GULF.

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the southwest than was previously thought by Speke and himself, and is therefore not of the heart-shape assigned to it in the earliest maps; it is, in fact, much longer from north to south than it is broad from east to west.

The rest of Stanley's great journey took him out of the Nile watershed.

But the discoveries which he made in the Albertine region of the Nile basin whetted the curiosity of Emin Pasha, who longed to return to these mysterious regions.

He did so in 1890, as a German official. Accompanied by Dr. Franz Stuhlmann, a very able explorer, he directed his steps to these regions of fascinating interest, the Snow-mountains, and the Great Forest. In 1891 Dr. Stuhlmann made an ascent of the Ruwenzori range on its western aspect nearly to the snow-line. He revealed the existence of its remarkable Alpine vegetation of giant groundsels and lobelias. He also attempted to discriminate between the many different snow-peaks of this lofty range, though with only partial success, his failure in arriving at a complete result, like that of subsequent travellers, being due to the constant presence of clouds. Emin and Stuhlmann together added a good deal to our knowledge of the Semliki, and to the clearing up of geographical points connected with the line of watershed between the Nile and the Congo systems immediately west of Lake Albert. Emin Pasha resolved to return by way of the Congo, and was therefore left

to do so by Stuhlmann, who returned to his duties in German East Africa. Re-entering the great Congo forest, and following a northern affluent of the Ituri-Aruwimi, Emin was captured by one of the slave-trading, Arabised Manyema who had recently invaded this region to secure ivory and slaves. As a German official, Emin (together with other Germans) had confiscated property belonging to these Manyema, had released slaves, and had severely punished slave-raiders. From motives of revenge, therefore, he was sentenced to death by his captor, and his throat was cut in his house one day in October, 1892.

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Dr. Franz Stuhlmann.

DR. FRANZ STUHLMANN.
(Deputy Governor of German East Africa.)

CHAPTER XXIV

GERMAN EXPLORERS DETERMINE THE SOUTHERN LIMITS OF THE NILE BASIN

THE acquisition by Germany of those interior regions of the Zanzibar coast-line which now constitute German East Africa led to a considerable development of exploration in the southernmost regions of the Nile basin. Prior to 1890 there had been much discussion as to what was the Nile's furthest tributary, — what stream, in fact, was the ultimate source of the Nile. Stanley's journeys in search of Emin Pasha had revealed the existence of the Semliki and of Lake Albert Edward, and had thus extended considerably the length of the Albertine Nile system. Later on Count Götzen had shown by his remarkable journeys north from Tanganyika that Lake Kivu (the existence of which had been already reported by Burton, Speke, and Stanley) was connected with Tanganyika, and therefore with the Congo. This put a limit to the Nile basin in that direction, and disposed for ever of the last vestige of Livingstone's wild dream, by which the main course of the Nile would have risen far south of the equator in what we now know to be the basin of the Congo, and have flowed through Lake Albert instead of through the Victoria

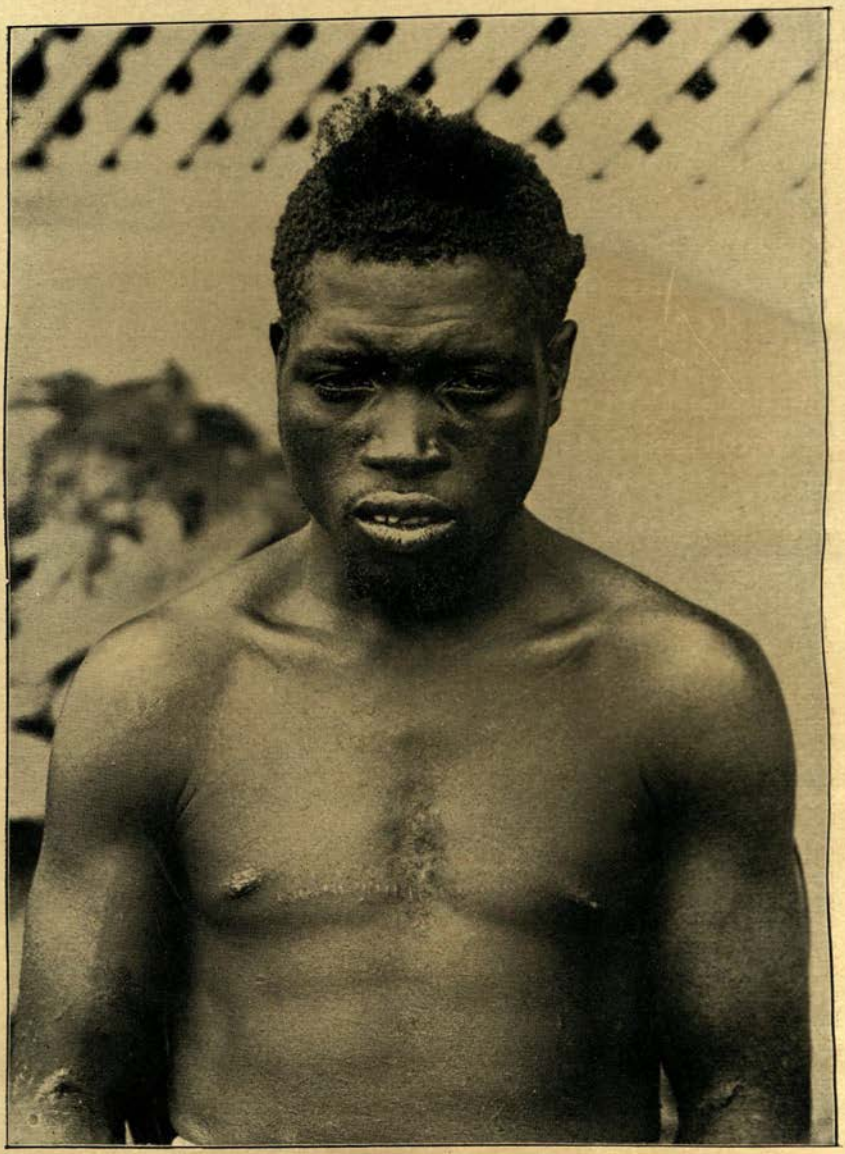
Nyanza. Speke had discovered the important Kagera River (which he called the Kitangule), and Stanley had extended our knowledge of this, the largest affluent of the Victoria Nyanza. Stanley had, in fact, in 1875 christened it the Alexandra Nile, but he was very much misled about its origin and course, and he made it issue from a hypothetical lake, Akanyaru,[1] which has no existence, but which was no doubt in part an exaggeration of swamps along the course of the Kagera, and in part a confusion with the rumoured Lake Kivu.

The Kagera is now acknowledged to be the extreme head-waters of the Nile. A distinctly observable current passes across the Victoria Nyanza from the mouth of the Kagera to the Ripon Falls. In 1891–1893 Dr. Oscar Baumann, a German official, who had previously done some good exploring work in West Africa, made extensive journeys through southern Masailand and Unyamwezi to the sources of the Kagera River. This stream (especially in its upper waters, where it is known as Ruvuvu), was further explored in 1899–1900 by M. [illegible] a French traveller, who had done a great deal to increase our knowledge of Central Africa.[2] Dr. Kandt,[3] in 1898, and other Germans, have also put on the map portions of the Kagera's course, and our knowledge of this stream has

[1] This word is the name of one of the tributaries of the Kagera.

[2] M. Dècle travelled overland from the Cape of Good Hope to the Victoria Nile in 1892–1894.

[3] Dr. Kandt (who first correctly mapped Lake Kivu) traced the course of the important Nyavarongo and Akanyaru tributaries of the Kagera. This learned explorer died in 1901.



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A NATIVE OF UNYAMWEZI, FROM NEAR SOUTH SHORES OF VICTORIA NYANZA.

received contributions from Messrs. Racey, Mundy, and R. W. Macallister, officials of the Uganda Protectorate. The Kagera River has two principal sources, both of them almost within sight of the waters of Tanganyika. The stream which is usually taken to be the more important source rises in south latitude 3° in the country of Ruziga, about fifteen miles due north of the north end of Tanganyika, at an altitude of about 6,270 feet above sea-level. Some fifty miles south-southeast of this point, however, there is another source, which may be taken to be the southernmost extension of the Nile system. This fountain, in south latitude 3° 45′, is on the eastern slope of the Utembera or Kangozi Mountains, only ten miles east of Tanganyika. The altitude is about 6,300 feet. This would seem to be the farthest source of the Nile.

Herr Baumann made another contribution of negative value to Nile exploration. Stanley and some other travellers had believed that the southernmost source of the Nile lay in the country of Unyamwezi, in certain streams which flowed northward into the Victoria Nyanza, which they entered under the name of the river Simiyu or Shimeyu. But in these deductions they were wrong. Baumann showed that the river Simiyu was an inconsiderable stream of short course, and that the waters much further to the south which had been identified with this river really flowed northeastwards into a largish salt lake, discovered by Baumann and called Lake Eyasi. Eyasi has no outlet. It is situated in a rift valley which

joins the great Rift valley of Masailand. The journeys of Baumann and of other Germans considerably curtailed the present extent of the Nile basin in Unyamwezi. The waters of this somewhat arid tableland, which apparently is almost below the surface of the Victoria Nyanza, flow mainly to Tanganyika, to Lake Rukwa, and to Lake Eyasi and other isolated pools of the rift valleys.

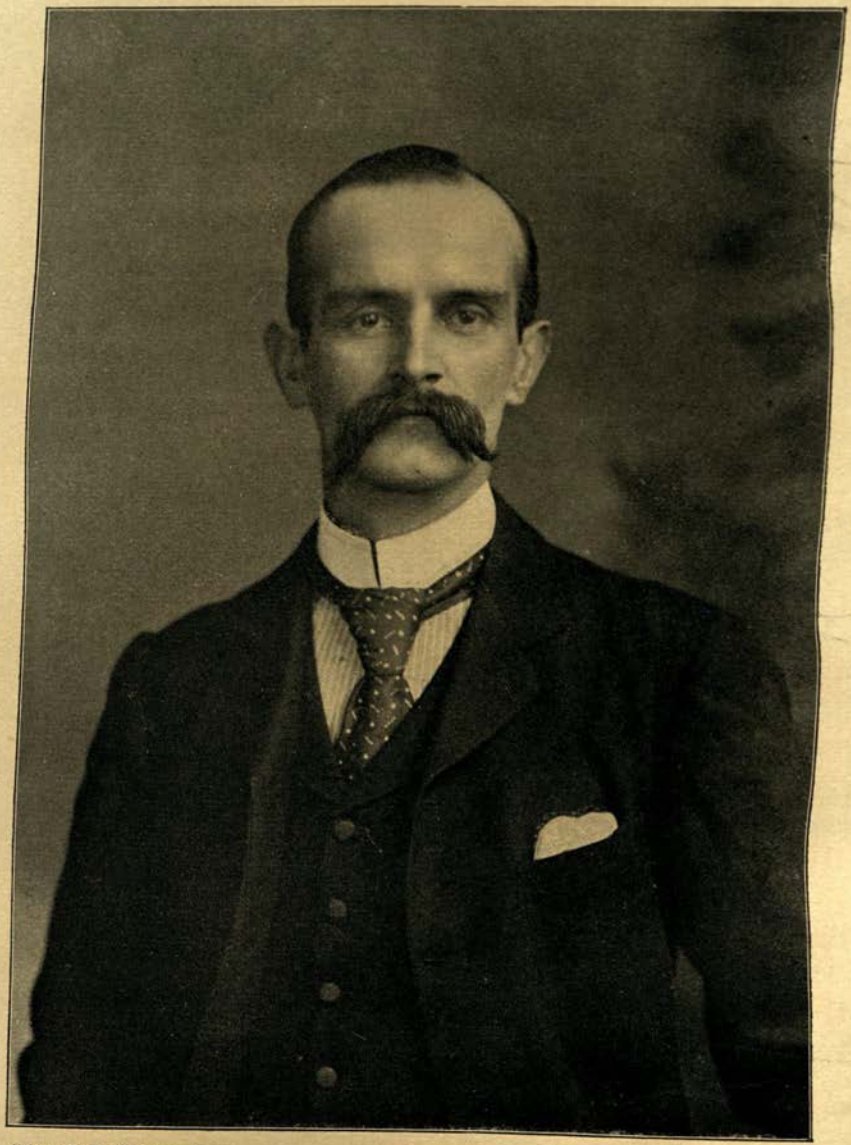

Photo by J. Thomson.]

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SIR FREDERIC D. LUGARD.

CHAPTER XXV

GEOGRAPHICAL WORK IN THE UGANDA PROTECTORATE

STANLEY'S relief of Emin Pasha led to the withdrawal of the latter's government from the equatorial regions, and after a brief interval of hesitation, to the foundation of a British Protectorate over Uganda and the adjoining territories. Preparations for this Protectorate were made by Captain (now General Sir Frederic) Lugard, who, in the course of his settlement of the disturbed country of Uganda, journeyed round Ruwenzori to Lake Albert Edward.[1] Shortly afterwards (as already related) Emin Pasha returned to this part of the world accompanied by Dr. Stuhlmann. Mr. Scott-Elliott, a Scottish naturalist, came out in 1893–1894 for the purpose of making natural history collections. He drew a very neat and truthful little map of the eastern and southern flanks of Ruwenzori, — a map which until quite recently has been somewhat overlooked by those who have compiled charts of this region. Scott-Elliott, Lugard, Stuhlmann, Grogan, J. E. Moore, Malcolm Fergusson, and several Belgian officers, such as the late Lieutenant Meura, were not slow to point out

[1] Lugard mapped much of the country between Uganda and Ruwenzori and discovered Lake Wamala in western Uganda.

and correct serious errors on the part of Stanley in his rough delimitation of Lake Albert Edward. Lake Dweru or Beatrice Gulf was also redrawn with advantage. But curiously enough, all these travellers—Stanley included—omitted to point out that the connection between Lake Dweru and Lake Albert Edward was not a broad channel, but a narrow and winding river between high banks. It was left to the present writer to make this correction on the map. The author also, together with Lieutenant Meura, redrew with greater correctness the upper course of the Semliki River, and in 1900 added somewhat to our knowledge of the configuration of the Ruwenzori range.

The expedition of Sir Gerald Portal (especially through the work of his brother Raymond, who died after doing excellent service in pacifying Toro) added to the map of the countries between Ruwenzori on the west and Kavirondo on the east. In 1895 the late Colonel Seymour Vandeleur (when only a lieutenant in the army) made an excellent and systematic survey of the Kingdom of Uganda and of much of Unyoro. The wars against the Sudanese mutineers added to our geographical knowledge of these districts. Colonel John Evatt and Captain H. Maddox, amongst others, gave us for the first time something like the true shape of the marshy lakes of Kioga and Kwania, which, in some respects, are huge backwaters of the Victoria Nile. But the great addition to the geography of the southern extremities of the Nile basin was made by the expedition under Colonel J. R. L. Macdonald.

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G. F. SCOTT-ELLIOT.

This officer had accurately mapped the regions bordering on the northwest coasts of the Victoria Nyanza in 1894. About this period also Mr. F. J. Jackson,[1] Mr. C. W. Hobley, and Mr. Ernest Gedge were filling up the map as regards the configuration of the country along the northeastern watershed of Victoria Nyanza and the slopes of Mount Elgon. Mount Elgon was ascended to its highest peak (14,080 feet), for the first and only time, by Messrs. Jackson and Gedge in 1895.

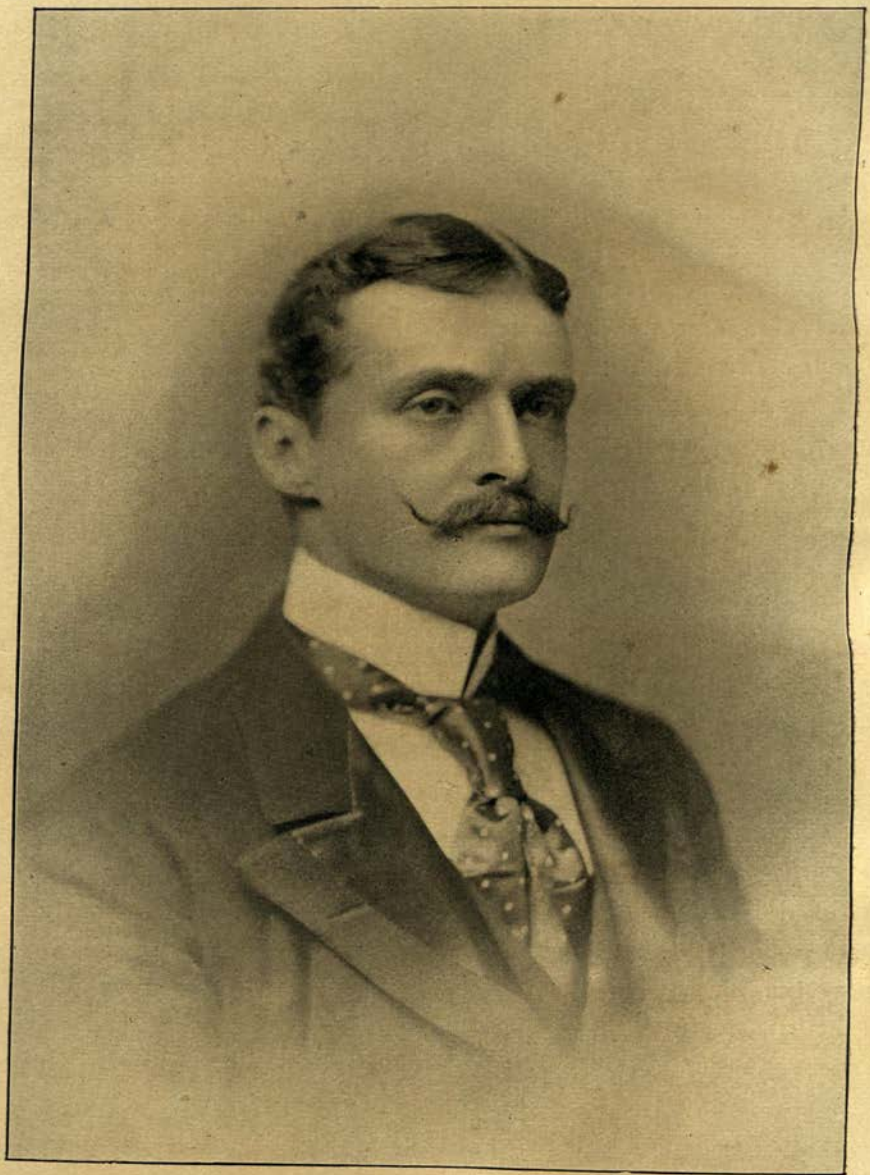
Colonel Macdonald was despatched more with a political than with a geographical object. He was to journey through the northeastern part of the British sphere of interest in East Africa and make for the Nile about Gondokoro, and so travel with the idea of forestalling any possible French competitors; whilst General (Lord) Kitchener should be defeating the Khalifa at Khartum with a view to recovering all the provinces of the Egyptian Sudan. But the mutiny of the Sudanese soldiers in Uganda and other causes threw great difficulties in the way of Colonel Macdonald's expedition. He succeeded however in mapping himself, and with the aid of such officers on his staff as Majors Austin, Bright, Hanbury-Tracey, and others, the regions to the north of Mount Elgon. He filled up a considerable blank in the map between what was known east of the Mountain Nile and the actual coast-line of Lake Rudolf. Colonel Macdonald's expedition first brought clearly to our knowledge

[1] Mr Jackson's magnificent zoölogical collections, especially in mammals, birds, and butterflies, have, with those of Mr. Oscar Neumann, done much to illustrate the fauna of southern Nileland.

the remarkable mountain-ranges of Chemorongi, Nakwai, Lobor, Lopala, Morongole, Agoro, and Harogo. He put on the map the upper waters of the Asua River (an important eastern contributary of the Mountain Nile) and its larger affluents. His work and that of the late Captain Welby has enabled us to define more clearly the separation between the waters of Lake Rudolf on the east and the Mountain Nile on the west. Colonel Macdonald discovered Lake Kirkpatrick on the upper Asua, and mapped more precisely Lake Salisbury and the northern slopes and streams of Mount Elgon.

Captain M. S. Wellby had travelled in 1899 round the east and south shores of Lake Rudolf, and thence had penetrated westwards through the Turkana and Karamojo countries to the Nile watershed, where he discovered two streams flowing north, both of which he named Ruzi. These he imagined to be the headwaters of the Sobat. Donaldson Smith and H. H. Austin showed his theory to be wrong [?]. The Ruzis probably flow into the rivers draining the Lotuka highlands and entering the Bahr-az-Ziraf or Giraffe Nile.

Colonel J. R. L. Macdonald (assisted by Captain Pringle) had previously (1893), when first employed in Uganda, made an admirable survey of the British coasts of the Victoria Nyanza, from Port Victoria in northern Kavirondo, westwards to the German frontier at the Kagera River, and for the first time put on record all or nearly all the islands, bays, inlets,



DR. DONALDSON-SMITH.

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peninsulas, and rivers of the north and northwest coasts of the Victoria Nyanza. Here and there his work in this direction has been added to by Mr. C. W. Fowler and Commander Whitehouse. Whitehouse, as already related, was the surveyor who finally amended Stanley's error of "Ugowe Bay," and gave us for the first time the correct form of the great northeastern gulf of the Victoria Nyanza (Kavirondo Bay), together with the shape of the two large islands which mask its entrance. Commander Whitehouse also surveyed the east coast of the Victoria Nyanza down to the German frontier, and added a lot of new material to the delineation of this eastern coast-line. In this direction an interesting journey was made from Lake Naivasha to the coast of Kavirondo Bay by Major E. Gorges in 1900. Mr. C. W. Hobley, a Sub-Commissioner in the Uganda Protectorate, contributed a good deal of information to fill up the blank places of the map between Kavirondo Bay on the south and the northwestern flanks of Mount Elgon on the north. Captain Pringle had already mapped these countries on the railway survey.

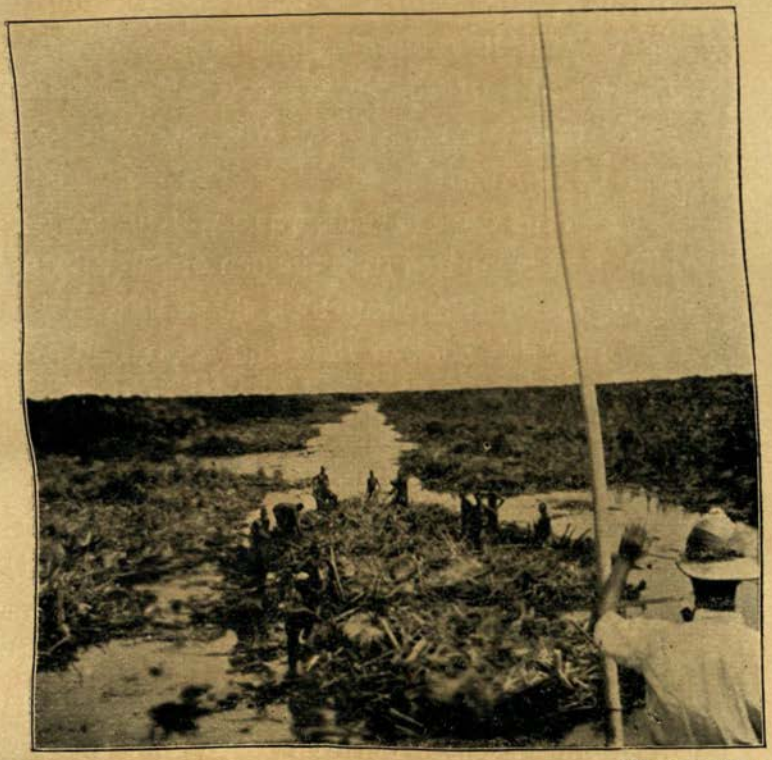
In 1900 Dr. Donaldson-Smith, an American, traversed the countries which lie between the north end of Lake Rudolf and the Mountain Nile. He crossed several dry river-beds, in a region of appalling drought (extinct tributaries of the Sobat), and then reached the rivers Oguelokur, Tu, and Kos which flow in a northwesterly direction towards the Mountain Nile or its branch, the Giraffe River. The region between the

Giraffe and the Sobat remains to-day the only unexplored part of the Nile Basin.

In 1900 and 1901 Major C. Delmé Radcliffe made the first completely accurate survey of the Nile from Lake Albert to Gondokoro, and put on the map for the first time many new details concerning the Asua River and its affluents, besides streams which rise in the hills of the Acholi and Madi countries and enter that portion of the Nile between Gondokoro and Lake Albert.

From the Cape to Cairo was a watchword that, as an idea, first emanated from the pen of Sir Edwin Arnold in 1876, and as a phrase took shape in writings by the author of this book in 1888 and 1890, and as a policy was finally adopted by Cecil Rhodes in 1892. The first person to carry this idea into practical execution was Mr. Ewart Grogan, who (accompanied part of the way by Mr. Sharp) travelled literally from the Cape to Cairo via Lake Albert Edward and the Uganda Protectorate. His contributions to Nile explorations are referred to in the next chapter. He was followed in 1900 by Major A. St. Hill Gibbons and later by M. Lionel Dècle. Between 1898 and 1902 Colonel E. A. Stanton surveyed the eastern part of the Bahr-al-Ghazal and the intricate channels of the lower Mountain Nile.

In the year 1900 a very notable achievement took place. The terrible obstruction of the sudd which had intermittently blocked the Nile navigation from the days of Nero's two centurions (who could hardly force



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CUTTING THE SUDD.

their way through it in the year 66 A. D.) to our own times was cut through resolutely by an expedition under Major Malcolm Peake. The government of the Egyptian Sudan has for the last two years continued to clear away this obstacle; and in all probability it will never be allowed to form again. In fact, in this direction man will probably do much to modify the subsequent history of the Nile. Sir William Garstin has recently explored Lake Tsana and the Blue Nile as well as the White Mountain Nile as far as Gondokoro, Lake Albert, and Lake Victoria, with a view to ascertaining which of the two rivers contributes the most valuable supply of water for the irrigation and fertilisation of Egypt. So far, he has decided for the Blue Nile, a fact which lends increased importance to the Empire of Abyssinia.[1] It may be, however, that with the clearing of the sudd on the Bahr-al-Ghazal and the Mountain Nile these branches of the great river may send down increasing supplies of water to Egypt. In any case the clearing of the sudd will permit of these waterways being used for penetrating in all directions into the heart of Equatorial Africa.

[1] It is said that the contribution to the Nile waters from the great Victoria Nyanza is not more considerable than the maximum discharge of one of the great canals in Egypt. Much of the volume of the Victoria Nile is spread out to waste and evaporate in the Kioga-Kwania Lake, which also receives the heavy rain-fall of north and west Elgon.

CHAPTER XXVI

THE EASTERN BASIN OF THE NILE

WE will now turn to the eastern part of the Nile basin — the first to be explored, the last to be finished. It has been already related how, alarmed at the rapid successes of the Portuguese in India, the Persian Gulf, and East Africa, the Abyssinians resolutely ejected the Portuguese missionaries from their country during the seventeenth century, and how the attempts of Louis XIV. to supplant the Portuguese by French influence resulted disastrously. Bruce had broken the spell which rested on this strange country, so fascinating to Europeans, because while being absolutely "Africa" it was ruled, and for the most part inhabited, by more or less Caucasian races, its rulers having a Semitic history which attached them to the fountains of civilisation. Our previous review of exploration in Abyssinia ended with Bruce's journey, and with the attempts on the part of French and German explorers during the early part of the nineteenth century to enter Abyssinia up the course of the Blue Nile. Meantime the overland route to the East had been conceived by Lieutenant Waghorn, the British government had seized Aden in 1839, and a much greater interest than heretofore was taken in the navigation of the

Red Sea, which was rapidly becoming the main route to India. Although Abyssinia then as now had no acknowledged political control over any part of the Red Sea littoral, it was early recognised that Abyssinia was an important factor in the political problems governing the control of the Red Sea. Even before the safety of the British route to India became a matter of urgent importance, we had sought to enter into direct relations with Abyssinia. In 1805 a British mission under Lord Valentia and Consul Henry Salt was sent to conclude an alliance with Abyssinia and obtain a port on the Danakil coast by means of which Britain could, if necessary, convey troops to Abyssinia, and so take a French Egypt in the rear. The writings of Henry Salt added greatly to our knowledge of the peoples, languages, and fauna of Abyssinia and of the Zanzibar coast, but did not contribute materially to the elucidation of Nile problems. During the first part of the nineteenth century Abyssinia was in the throes of civil war caused by the struggles for supremacy between the ruler of Tigre (the northern province) and the Ras or Governor of Amhara (the central province). The Ras of Tigre — Sabagadis — threw open northern Abyssinia to the English, cordially inviting missionaries, mechanics, and explorers to enter his dominions. In this way the Church Missionary Society's missions to eastern Africa started by the despatch of Protestant missionaries (mostly Germans in the pay of the Society) to Tigre. On the other hand, the war between Tigre and Amhara

having resulted in the death of both the chiefs, a third potentate, the ruler of the lofty Samien Mountains, annexed Tigre, and out of opposition to his predecessor's policy invited Frenchmen to develop the country. Captains Galinier and Ferret accepted the commission to survey Tigre and Samien by careful triangulation. This task was accomplished in 1842, and resulted in the correct mapping of the affluents of the Atbara. Meantime the British Protestant missionaries had penetrated into Amhara, while Tigre and Samien came under French Roman Catholic influence. In fact, the history of Uganda was given here on a larger scale. Simultaneously the southern province of Ethiopia, Shoa, under the enlightened ruler Selasié had attracted the attention of Europeans. Major (afterwards Sir William) Harris was sent by the Indian government in 1841 to conclude a treaty with Shoa, as it was thought that this country might eventually extend its influence over Somaliland, and so come into direct contact with the Indian government at Aden. This British mission was naturally followed by a French one, and a French envoy applied to the Pope for the starting of a Roman Catholic mission in Shoa.

The work of Monseigneur Massaja, who was despatched by Pope Pius IX., though it throws much interesting light on the structure of the Gala language, hardly comes within the sphere of Nile exploration. Meantime an adventurer named Kasa had arisen in Amhara, and had gradually made himself master of

the northern and western provinces of Abyssinia. He had himself crowned King of Kings of Ethiopia under the name of Theodore, and then proceeded to annex the province of Shoa to his dominions.

During the early part of Theodore's reign the two brothers d'Abbadie were at work surveying Abyssinia and collecting invaluable information regarding the languages, literature, coins, inscriptions, and religions of that assemblage of Semitic, Hamitic, and Negro states. Antoine Thomson d'Abbadie and his brother Arnaud Michel were actually born in Dublin, their father being French and their mother Irish. They were however educated in France. Their bent for scientific exploration was early recognised, for the French Academy sent the elder of the two on a scientific mission to Brazil at the age of twenty-five. The younger d'Abbadie explored Algeria. This leading his thoughts in the direction of Abyssinia, he proposed to his brother a joint mission of exploration, which commenced in 1838 by their landing at Masawa. Besides carefully surveying the northern and central provinces of Abyssinia they did work of special novelty and interest in the south. Until the journeys of Cecchi and other Italians twenty years ago the d'Abbadies' information concerning the countries lying to the south of Abyssinia represented all that we knew of Kaffa and Enarea,—names indeed which had been cited by the Portuguese, but names unsupported by geographical information. Antoine d'Abbadie penetrated the furthest into Kaffa. He

collected an immense amount of information regarding the languages spoken in the vague south and southwest districts inhabited mainly by races of Hamitic origin. The d'Abbadies closed their survey of Abyssinia in 1848, though the younger brother paid the country another short visit in 1853. They were in no hurry to give the results of their explorations to the world; in fact, the "Géographie de l'Éthiopie" (of which only one volume was published) did not appear till 1890. Their actual surveys of Abyssinia were published between the years 1860 and 1873. Their Ethiopian manuscripts came out also during that period, but Antoine's Dictionary of the Amharic tongue was published no further back than 1881. Their twelve years' work in Abyssinia was the greatest contribution that has ever been made to our knowledge of that country, but most of their labours do not lie sufficiently within the field of Nile exploration to admit of an adequate description in this book. Antoine d'Abbadie lived to the age of eighty-seven (he died in 1897). About 1859 he found himself involved in a somewhat acrid conflict of opinion with another Abyssinian explorer, Dr. C. T. Beke, who visited Abyssinia in the forties of the last century. D'Abbadie was naturally prejudiced in favour of the Blue Nile being the main Nile, since that river and its southern affluents had been the special object of his researches during twelve years. On the other hand, Dr. Beke was hotly in favour of the White Nile, especially after Speke's discovery of the Victoria Nyanza. Dr. Beke was right in his main

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DR. C. BEKE.

contentions, but seems to have thrown unnecessary aspersions on the genuineness of Antoine d'Abbadie's explorations in southern Abyssinia. We now know d'Abbadie's work to have been perfectly accurate.

Mansfield Parkyns, an Englishman, visited Abyssinia from 1843 to 1846, wrote interestingly on the country in confirmation or correction of Bruce's statements, but did not add materially to our geographical knowledge, though his book is still often quoted in regard to habits and customs now dying out.

Amongst the Protestant missionaries first despatched to the country by the Church Missionary Society of London was the celebrated Krapf, already alluded to in Chapter XI. as the joint discoverer of the East African snow-mountains. Krapf penetrated far south into Shoa, and gave considerable information, both interesting and true, regarding the dwarfish Negro tribes found to the southwest of the Abyssinian Empire.

Lij Kasa, who had become King of Kings of Ethiopia under the name of Theodore III., showed himself, when he had consolidated his power, very fond of the English, and encouraged English missionaries and consuls to go to his court. He seems, however, to have pursued this policy more with the idea of strengthening his prestige and improving his kingdom by the spread of mechanical appliances and the manufacture of superior arms and ammunition, than from any desire to encourage missionary work. In the early sixties he became offended at a supposed slight on the part

of the British government, which left unanswered a letter addressed to it by Theodore in 1863. His subsequent proceedings in regard to the imprisonment of the consul and missionaries eventually brought about the British expedition of 1868. A force of sixteen thousand British and Indian soldiers under Sir Charles Napier (afterwards Lord Napier of Magdala) marched from Masawa up and along the eastern escarpment of the Abyssinian plateau, and captured the citadel of Magdala, which is situated within the basin of the Nile, close to the northeasternmost tributary of that river. This expedition was accompanied by Dr. W. T. Blanford, who compiled a valuable work on the geology and zoölogy of Abyssinia, which was published in 1870.

For ten years after the withdrawal of the British expedition, in 1869, little advance was made in our knowledge of Abyssinian geography. Theodore was succeeded by another adventurer, also called Kasa, — a native of Tigre, — who afforded considerable help to the British. By means of our indirect support he succeeded in getting himself crowned as Yohannes (John), King of Kings of Ethiopia. Shoa alone, where Menelik (the present emperor) was slowly recovering the power of his father (who had lost the country to Theodore), was not actually conquered by the Emperor John; for just as he was starting to subdue Menelik, he himself was attacked by the Egyptian army under Munzinger, the Swiss Governor of Masawa. Munzinger was urging the Khedive's government to occupy and annex Abyssinia, and Egypt

had, as a preliminary, seized the Bogos country, the greater part of which still remains Egyptian. But in 1875 John inflicted a tremendous defeat on the Egyptian army near the river Mareb, and in 1876 a second defeat, still more disastrous to the Egyptian power. This brought about the intervention of General Gordon, who, in 1876 and 1879, made two attempts to come to a friendly understanding with Abyssinia. His journeys added a little to our knowledge of the affluents of the Blue Nile and the Atbara.

In 1879 the Earl of Mayo (who subsequently travelled with the writer of this book in southwest Africa) made an interesting journey along the Takaze River, which is the upper waters of the Atbara. His sporting expedition was followed by that of the brothers W. and F. L. James (who subsequently explored Somaliland). The Italians began to take an interest in Abyssinia at the end of the seventies, but the first expeditions undertaken by their explorers have no connection with the Nile basin.

In 1839 or 1840 one of the most important affluents of the Nile was discovered by the expedition of Turks and Europeans despatched by Muhammad Ali to explore the White Nile. This was the Sobat (as it was named by the Nile Arabs), which enters the White River under the ninth degree of latitude. The word Sobat was evidently an ancient Nubian or Ethiopian term which was in existence two thousand years ago, when it was applied to the White Nile (Asta Sobas), in contradistinction to the Blue Nile (Ast'apos). At

the present day the Sobat is known by the name of Kir[1] on its lower portion, and Baro on its upper course. In subsequent years steamers ascended the Sobat from the Nile as far as it was navigable, namely, to a point called Nasr. Johann Maria Schuver, a Dutch traveller in the seventies of the last century, and several Europeans in the service of the Egyptian government, collected a little more information about the Sobat and its tributaries above Nasr, but this river long remained one of the unsolved problems of Nile geography. Schuver did much to explore the western Gala countries between the Sobat and the Blue Nile. On some of these journeys he was accompanied by the Italian explorer Piaggia[2] (who had discovered Lake Kioga on the Victoria Nile). Piaggia, in endeavouring once more to force his way towards the Sobat, died at Karkoj, on the Blue Nile, in 1882.

The surcease of the Nile exploration which followed on the Mahdi's revolt in 1882, closed for a time the exploration of the Sobat and its affluents. But one result of this revolt was to urge European inquirers more and more towards Abyssinia, especially the southern provinces of that empire. A

[1] I should again like to point out how frequent amongst Nilotic Negroes is the word Kir for a big river. This name is frequently applied to the main Nile, and appears even to crop up again in the Bantu languages of the Victoria Nyanza, for in Luganda the Nile is also called Kiira.

[2] Piaggia was originally an Italian mechanic, born at Alexandria. He drifted to the Sudan in 1856, and generally attached himself as a sort of caravan leader to the traders in the Bahr-al-Ghazal. In this capacity he explored (quite unscientifically) the Nyam-nyam country in 1863–1865, and in 1876 he visited Lake Kioga and the Victoria Nile.

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NATIVES OF THE BARO (UPPER SOBAT) SKINNING HIPPOPOTAMUS.

French explorer, Jules Borelli, made remarkable journeys to the south and southwest of Abyssinia at the close of the eighties of the last century, and, besides discovering the river Omo, which flows into Lake Rudolf, he gave much new information regarding the source of the Sobat. The book which he published in 1890 — "Ethiopie Méridionale" — is one of the best and most beautifully illustrated works which have appeared on Africa.

Italy having assumed an unacknowledged protectorate over Abyssinia, subsidised expedition after expedition, nominally for scientific research. Among the best equipped of these undertakings, and the most fruitful in geographical results, was an expedition under Vittorio Bottego, L. Vannutelli, and C. Citerni, which explored the head-waters of the Sobat (Baro, Akobo, etc.) in the southern Abyssinian highlands, and also the waters of the Didessa (Dabessa), which is the southernmost tributary of the Blue Nile.

In 1898 the celebrated Captain (now Colonel) J. B. Marchand, who had made a most remarkable journey across the Nyam-nyam country in the western Nile basin from the Mbomu (a northern affluent of the Welle-Ubangi), across the Nile watershed to the Sue River, and down the Sue to the Bahr-al-Ghazal and Fashoda, left Fashoda[1] in consequence of the agreement between France and Great Britain, and travelled to Abyssinia more or less along the course of the

[1] For various reasons not all Captain Marchand's officers could be brought away from the Nile immediately. Lieutenant Tanguedec was left for some two years entirely isolated on the White Nile near Bor.

Sobat River, thus, first of all Europeans, practically connecting the southern provinces of Abyssinia with the White Nile by a direct journey up the valley of the Sobat or Baro. Marchand's explorations were supplemented by those of MM. de Bonchamps and Michel.

These explorers were soon followed in the same direction by the late Captain M. S. Wellby. Captain Wellby also made a most interesting journey from Abyssinia to Lake Rudolf, down the east coast of Lake Rudolf to Lake Baringo and the Uganda Protectorate, and then northwest through the Turkana country, which lies to the west of Lake Rudolf. Here Captain Wellby found himself on the Nile-Rudolf water-parting. To the west of the Turkana, in the Karamojo country, he crossed an important stream named the Ruzi,[1] which was flowing in a general way northwest. Farther north he encountered another river also named Ruzi, which might or might not be the same, but which in doubt he called Ruzi II. From the second of these Ruzis he eventually reached the main Sobat. Thenceforth he believed that in one or other of the Ruzis he had discovered the southernmost affluent, or perhaps the head-waters of the Sobat River. His theory, however, was strongly contested by Major H. H. Austin, who, in company with Major R. G. T. Bright, travelled over the greater part of the Sobat system in 1900–1901, giving us for the first time a fairly accurate survey

[1] A name very suggestive of the Bantu languages.

Photo by Pierre Petit & Fils.] [*Face page* 286.

COLONEL J. B. MARCHAND.

of that river, and of its southern affluents, especially the Pibor-Akobo, which for length of course, though not in volume, might lay claim to be the main Sobat River. The Akobo rises in the mountains to the north of Lake Rudolf, its source being very close to the stream of the Omo, the principal feeder of Lake Rudolf. It does receive an affluent from the south, which is named by Major Austin "Neubari," but this stream is at present unexplored in its lower course. It might turn out to be one of the rivers named by Captain Wellby "Ruzi." At the same time Dr. Donaldson-Smith, who crossed this region in 1900, does not appear to have encountered running water where the junction of the Ruzi and the Neubari should have taken place. Probably the two Ruzis discovered by Captain Wellby are two different streams, one of which flows northwestward into the Nile and the other into the northwest corner of Lake Rudolf. The countries to the south of Akobo and northwest of Lake Rudolf are described by the few travellers who have visited them as being a region of appalling drought.

Mr. Weld Blundell had succeeded the Bonchamps-Michel expedition as an explorer of the Blue Nile, and of its interesting southern affluent, the Didessa. Mr. Blundell made several interesting changes in the delineation of the course of the Blue Nile westward of Gojam. Blundell's work was succeeded by the remarkable surveys of Major C. W. Gwynn and Lieutenant L. C. Jackson, who contributed a map of the Blue

Nile from Roseires up stream to the Gubba country, on the frontiers of Abyssinia. They also threw a little more light on the course of the Didessa and Yabus affluents of the Blue Nile, and the upper waters of the Rahad, which also flows (somewhat intermittently) into the Blue Nile. From the Rahad they crossed the tiny stretch of mountainous country (Galabat) to the Atbara. Here they showed that only a distance of about five miles of mountains separates the affluents of the Atbara from the affluents of the Rahad, which is a tributary of the Blue Nile. But for this intervening ridge of five miles in breadth, the systems of the Atbara and the Blue Nile would (as the ancients and Arabs formerly believed) have turned the whole country of Sennar into a huge island, in which form it was represented by most travellers down to the beginning of the nineteenth century. Major Gwynn also explored the headwaters of the river Garre, which is the northernmost affluent of the Baro-Sobat, and also the Pibor. As to the country between the Baro or the main upper Sobat and the Pibor, Major Gwynn describes it as "a dried-up marsh covered with a thick choking layer of black ash resulting from the burning of the grass." The Nuers, one of the eastern tribes of the Nilotic Negroes, he describes as a wonderfully fine race physically, averaging nearly six feet in height. Of the work of the earliest European pioneer in western Galaland Major Gwynn gives a generous estimate: —

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GORGE OF THE RIVER BARO (UPPER SOBAT).

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BERTA NEGROES.

"Up to this point (the Lega-Gala country) we had been traversing a land which had to a certain extent been explored by Schuver, and his work had, on the whole, been found to be very accurate in detail, though in the southern portions of his map a considerable error in latitude had appeared. . . . Schuver was much liked and respected throughout the country, and a great impression had been produced by his dog, which must have been a big Newfoundland. (He is still always spoken of by the Galas as Abu Sari, 'the Father of the Dog.')"

On the middle of the Blue Nile, north of the country of Fazokl, the aboriginal inhabitants are purely Negro — Berta and Barun. These Negro races were probably first mentioned by Cailliaud, the French explorer, and Ferdinand Werne, the German, who travelled on the Blue Nile between 1829 and 1843. Major Gwynn describes them as "a very black race, large, well made, but slothful and stupid to a degree. Going up to their villages in the hills, one finds them stretched out, sunning themselves on the rocks, looking for all the world like great black snails. Funny little black pigs and stringy fowls share the huts on equal terms."

An interesting journey was made by Mr. Oscar T. Crosby across southern Abyssinia and down the Blue Nile in 1900. In an article by Mr. Crosby in the "Geographical Journal" of July, 1900, an interesting description is given of the deep gorge of the Blue Nile in the Gomar country of Gojam. The level of the river at this point is 4,725 feet above sea-level. The edge of the plateau above the river is 9,650 feet,

and this plateau descends nearly five thousand feet in a series of abrupt steps or "benches."

At the beginning of 1900 Mr. Oscar Neumann, a German, already noted for his explorations of the eastern part of the Uganda Protectorate, reached Abyssinia by the now well-trodden route from Zeila to Harar, and after visiting the Blue Nile in Gojam, explored the northern part of the Rudolf basin, and then reached the Galo, which is one of the rivers that might claim to be the head-waters of the Sobat, a river rising in those lofty, snow-patched highlands to the southwest of Enarea. From the Galo, Neumann crossed to the Akobo, and followed this stream down to its confluence with the Pibor. At this confluence he makes the Pibor such an important stream that it may well be Captain Wellby's Ruzi. In the country immediately to the south of Kaffa and on the water-parting between the systems of the Nile and Lake Rudolf Mr. Neumann claims to have discovered Negro races of the Bantu stock. Apparently he means merely in physical type, — in other words, Negroes of more or less West African affinities; but if he or any other traveller should be able to support this statement by specimens of the language of these Sheko and Binesho peoples which actually showed affinities with the Bantu family, he would have thrown a remarkable new light on the unsolved problem concerning the source of this interesting family of African languages. The present writer has been able to show that Bantu languages of the most archaic type

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A BERTA VILLAGE IN THE MATONGWE MOUNTAINS.

exist at the present day on the northwest slopes of Mount Elgon. This is the furthest point to the northeast to which the Bantu family has been traced. Thence southwards and westwards it spreads as the dominating family of languages as far as Cape Colony and Fernando Po.

Almost the only large white spot now remaining unexplored in the Nile basin is the district occupied by Nilotic Negroes (Dinka, Nuer, Shiluk), lying between the Sobat River on the northeast and the main White Nile on the west and southwest. This region appears to be a flat country of alternate marsh and arid steppe, producing few or no great rivers of its own. On the west it is watered by the affluents of an important river, vaguely known as the Oguelokur, some of which (such as the Tu and Kos) rise in those high mountains of the Lotuka country in the northernmost parts of the Uganda Protectorate. Mr. Ewart Grogan, accompanied part of the way by Mr. Sharp, in 1899 and 1900, made a remarkable journey, literally from the Cape to Cairo. He travelled from the north end of Lake Tanganyika by way of lakes Kivu and Albert Edward to the Albert Nyanza, and thence down the Nile to the sudd barriers beyond Bor. After which, taking to the land, he traversed the unknown country along that branch of the White Nile called Bahr-az-Ziraf or the Giraffe River. He discovered another branch of the Mountain Nile which joins the Bahr-az-Ziraf, and at the junction of these rivers he notes the entry of a powerful tribu-

tary from the southeast, doubtless the Oguelokur. It is sometimes supposed that the southernmost of the Ruzi rivers discovered by Captain Wellby also joins the Oguelokur, and not the Sobat, though the more northern Ruzi may be the head-waters of the Pibor. Some distance to the west of the Pibor is a river called in Sudanese Arabic "Khor Felus." This river was practically discovered by Captain H. H. Wilson in 1902. Starting southwards from the Sobat, not far from its confluence with the main Nile, Captain Wilson followed the Khor Felus up stream for a distance of some eighty-five miles in a direct line due south. He describes the country traversed by this winding river as being flat and uninteresting,—nothing but a vast grassy plain, with hardly a tree to be seen. The river or khor was not traced to its source, which indeed was said by the natives to be the White Nile itself. If this be true, another branch of the White Nile would start from near Bor and flow northeastwards into the Sobat; further, more natural canals seem to connect the Khor Felus with the Pibor or the Upper Sobat. If this is the case, then in that vast plain lying between the Sobat and the Nile, which was once a portion of the "Lake of Fashoda," we have still remains of many old channels of the Nile which, as the lake drained off to the northwards, meandered over its drying bed.

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THE NILE IN EGYPT.

CHAPTER XXVII

CONCLUSION

THE Nile quest is practically ended. It may be safely said that every important branch or affluent or lake-source of this the longest river in Africa (very nearly the longest in the world) has been discovered, named, and partially or completely mapped. The only portion of the Nile basin which presents any noticeable blank on the map is the unknown district — some say of swamp alternating with arid steppe — which stretches like a tongue of white in our charts between the tributaries of the Mountain Nile and the Giraffe on the west, and the affluents of the Sobat on the east. In all probability whilst these lines are written and printed this blank is being filled up by industrious surveyors sent out by the Anglo-Egyptian government of the Sudan.

Fate has ordained that the entire basin of this river and its tributaries (with the trifling exceptions of the upper waters of those which rise within the political limits of Abyssinia, a portion of the extreme source of the Nile (the Kagera), of Lake Albert Edward, and of the Semliki) should come under the political control of Great Britain. We have, therefore, cast our ægis over one of the most wonderful regions, in

some respects one of the most productive portions, of Africa.

On the north there is the oldest country in the world, so far as history goes, — Egypt, with its ten millions of Egyptians, Arabs, Europeans, and Nubians; its cotton and wheat, maize, barley, beans, sugar-cane, dates, rice, and clover; its petroleum, gold, and emeralds in the eastern desert, and its alum and soda in the Libyan wastes; Egypt, with its European or Mediterranean fauna and flora.

Then comes Nubia, producing little at present but fierce men of mixed Hamitic, Semitic, and Negro blood; then the richer countries of Darfur, Kordofan, Sennar, Bogos, Kasalá, and Galabat. Here there is no lack of trade goods, — copper, camels, asses, and, above all, acacia gum. The vegetation in these lands is no longer that of the Mediterranean. It is African. On the hills above three thousand feet, appear dracænas and euphorbias. In the lowlands there are baobabs, acacias, giant fig-trees, wild-date palms, and the branching hyphæne. Here begins the great fauna of Africa, — baboons, elephants, antelopes, lions, zebras, cheetahs, leopards, spotted hyænas, wild asses, rhinoceroses, giraffes.

Farther south comes the influence of the regular equatorial rains. The steppe gives place to grass-lands, and, above all, to marshes, — hopeless marshes of papyrus, of Phragmites reeds, of the fleecy *Vossia* grass, of the floating *Pistia stratiotes*, the amaranth, the water-lily, and the ambatch (a gouty

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NUBIA: A "WASHOUT" ON THE SUDAN RAILWAY.

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TROPICAL FOREST AT ENTEBBE, ON THE NORTH-WEST SHORES OF VICTORIA NYANZA,
(Now turned into Botanical Gardens.)

bean with orange-coloured blossoms). In these marshes swarm the hippopotamuses and crocodiles, long banished from Egypt proper. Here strides and poses the extraordinary *Balæniceps rex* or Whale-headed stork. Sacred ibises, spoonbills, stilts, herons, marabou storks, white storks, black storks, saddle-billed storks, tantalus storks, Egyptian geese, spur-winged geese, knobnose geese, ducks of many kinds frequent this dreary land, that, save to birds, has no horizon; for everywhere the view is shut in with walls of reed and rush and amphibious bush. Yet away beyond the marshes — marshes which are really hidden lakes and mighty rivers with false banks of floating vegetation — is a grassy country dotted with stony hillocks, if one travels far enough from the river, and inhabited by naked Nile Negroes. These are tall black men with long, thin shanks, and the gait and attitudes of wading birds. They are cattle-keepers, above all, and their vast unseen herds beyond the marsh lands breed and send forth periodically for the devastation of Africa those cattle plagues which recur at intervals of a few years.

To the southwest of Marshland begins an attractive, even beautiful, park-like country of rolling, grassy downs, interspersed with fine trees of ample foliage, with belts of forest along the rivers. Beyond the park-lands rises that tremendous tropical forest which passes thence uninterruptedly over the water-parting into the basin of the Congo. This tropical forest, only to be rivalled in luxuriance by that of the Amazons

in South America, stretches in a crescent curve along the southwestern edge of the Nile basin to Ruwenzori, and, with a few interruptions, into Unyoro, Uganda, and the northern shores of the Victoria Nyanza. On the plateaux lying to the northeast of the Victoria Nyanza are other areas of dense forest, but not always tropical in character, — forests consisting of great conifers and tree-heaths, which reappear on the high mountains of Abyssinia.

To the immediate south of the marshy country appears more parkland on either side of the Mountain Nile, and in the countries of the Acholi, the Lango, and the Lotuka. Beyond this parkland is the great area of marshes between the Victoria Nile and Mount Elgon. North of Elgon the parkland becomes more arid. East and west of the Victoria Nyanza are beautiful and healthy plateaux ranging from six thousand to ten thousand feet in altitude, and highly suggestive of Europe and the Cape of Good Hope in their vegetation.

Between the watershed of Rudolf and that of the White Nile are many mountains, but as one proceeds northward in the direction of the Sobat, the country is increasingly parched and sandy where it is not stagnant marsh.

Nileland contains within its limits the highest point of the African continent, — the culminating peak (whichever it may be) of the Ruwenzori range, a ridge which presents some thirty miles of snow and glaciers, and perhaps attains twenty thousand feet in

supreme altitude. South of Ruwenzori, and still partly within the Nile watershed, is the Mfumbiro group of volcanoes, two of which possibly exceed an altitude of thirteen thousand feet. Away to the northeast of the Victoria Nyanza is the great extinct volcano of Elgon, over fourteen thousand feet in height, while the mountains of Abyssinia, where the Sobat, the Blue Nile and its tributaries, and the Atbara take their rise, reach in places to altitudes of sixteen thousand feet, and are capped with patches of perpetual snow. Nileland, therefore, offers a wonderful range of climate, temperature, and vegetation.

Its fauna comprises the most interesting, the biggest, and the handsomest of African beasts. And its human races include nearly every type of Negro and Negroid, — Congo Pygmies, Turkana giants, Masai like Greek athletes and Balega[1] like apes, long-shanked Dinka and Shiluk, short-limbed Lendu, burly Baganda, handsome Bahima, ugly Berta and Shangala, bearded Nyam-nyam and womanish Madi; the clothed, curly-haired Galas and the absolutely nude Nilotic Negroes. In Egypt are pure Caucasians; in Nubia and Abyssinia, in the lands between the Nyanzas, are people of this regal stock variously mixed with antecedent Negro.

The Nile has been the main route by which in ancient times the Caucasian invaded Negro Africa, the once exclusive path by which the white man's cultivated plants and domestic animals reached the torrid

[1] Negroes of the Semliki valley and forest.

lands and dense forests where the Negro, before the Caucasian touched him, lived in the condition of the semi-beast. No Negro race cared whence the Nile came or whither it flowed. Interest in geographical problems, as it was remarked in the first chapter of this book, is almost the exclusive heritage of the Caucasian. This is the human race which for some three thousand years has felt first a flickering curiosity, latterly an intense desire, to wrest the secret of the Nile sources from the heart of Africa. Its aim is accomplished. The main features of the Nile system are placed on the maps of civilised men, are known to intelligent Egyptians, Arabs, Indians, and Abyssinians.

The Nile has been the Caucasian's first and easiest way across the desert to Real Africa before the ocean could be navigated. The Nile basin, moreover, offered to the more sensitive white man elevated areas, oases in a land of malarial fever, wherein he could make some home or settlement, south of the Tropic of Capricorn, not too dissimilar in climate and temperature to the lands of temperate Europe and Asia. From the vantage-ground of Abyssinia, of the Nandi and Ankole plateaux, of the Mediterranean Delta of the Nile, the Caucasian may still direct the education of the Nile Negroes and permeate increasingly these black and bronze-skinned, woolly-haired backsliders from human progress with Caucasian blood, energy, and love of knowledge, till the Nile Negro himself grows interested in the past history of Nile discovery.

CHAPTER XXVIII

THE GEOGRAPHY OF THE NILE BASIN

EARLY in the geological history of the globe there appear to have been rock-foldings, wrinkles in the earth's surface in the eastern half of Africa. Sometimes this puckering of the solid crust manifested itself simply in longitudinal strips of raised plateaux of which Abyssinia and the highlands east of the Victoria Nyanza, north and west of Nyasaland, are remains. A sharper wrinkle than others produced the remarkable snowy range of Ruwenzori, perhaps the greatest altitude of the African continent. These lofty plateaux and mountain ranges from Abyssinia on the north to Nyasaland on the south have no doubt in all times attracted an unusually heavy rainfall from the moisture-laden clouds which are blown inland off the Indian Ocean. The rainfall on the Livingstone Mountains and the Nyasa-Tanganyika Plateau drains south and east to the Indian Ocean and west to the basin of the Congo; or into Tanganyika, which is likewise connected with the Congo at the present day.[1] North of the Tan-

[1] This lake is at present one of the unsolved African problems as regards its history and affinities. Unlike other lakes of Central Africa, its fauna has marine affinities, and would seem indeed to be actually of

ganyika system, however, — that is to say, approximately north of the third degree of south latitude, — the rainfall flows either towards the Mediterranean down the valley of the Nile, or else in a north-northeasterly direction into a string of isolated lakes which apparently at one time communicated with the Gulf of Aden at the mouth of the Red Sea. Supervening on the original wrinkling of the true backbone of Africa (i. e. the elevated ridge which extends from the Nubian Alps to the Cape of Good Hope or at any rate to the Zambezi) came a series of profound volcanic disturbances, elevating, depressing, cracking, and rending the eastern side of this ancient continent. As a rule this volcanic action seems to have proceeded along nearly parallel curved lines, running from the latitudes of the Zambezi River in a north-northeasterly direction. The first and widest of these faults due to volcanic action was seemingly the sinking of the ground between Madagascar and East Africa. A nearly parallel but much narrower rift valley was also formed up the trough of Lake Nyasa,

marine origin. It is at the present day connected somewhat intermittently with the Congo drainage, and therefore with the Atlantic Ocean; and one assumption to explain the existence of its sponges, shrimps, and jelly-fishes is that in Jurassic times it was connected with a vast inlet of the Atlantic Ocean which occupied the northern half of the low-lying Congo basin. Yet, when a relief map of Africa is looked at, it strikes one at a glance that Tanganyika lies within the same rift valley as Lakes Kivu, Albert Edward, Albert Nyanza, and the Albertine Nile. Its southern end may also have been connected through Lake Rukwa, with the rift valley of Lake Nyasa. It would be easy to imagine the occurrence of a recent and slight upheaval which detached this lake from the Nile system and sent its overflowing waters in the direction of the Congo, but for the aforementioned marine fauna of its waters. Its history, therefore, remains at the present moment an unsolved problem.

northwards[1] to the celebrated rift valley which lies to the east of the Victoria Nyanza, and contains innumerable lakes, large and small, salt and fresh. This valley, with some interruptions, extends north and northeast till it reaches the shores of the Gulf of Aden.[2] Westward again of this East African rift (which some geologists believe to have been continued with a northwesterly inflection up the Red Sea to the valley of the Jordan) is another less clearly-defined fault, which may have produced the valleys of the Kafue and of the Luapula, and was then continued northwards through Tanganyika to the Albert Nyanza and the valley of the Nile. Various upheavals and modifications broke up the continuity of this western rift valley. The drainage of the Kafue was deflected to the Indian Ocean; that of the Luapula and its lakes and of Tanganyika to the Congo basin. North of Lake Kivu,[3] however, the drainage flowed northward into a vast fresh-water inland sea, which, for want of a better name, we may call the Lake of Fashoda. A parallel to this great circular, shallow sheet of water existed not very anciently in the northern basin of the Congo, and another is to be seen at the present day in the Victoria Nyanza. This last is the largest existing lake in Africa. So far as is known it is shallow compared to such deep

[1] With a bifurcated rift up Tanganyika.

[2] See "L'Omo," by L. Vannutelli and C. Citerni.

[3] A small and very interesting lake which lies about sixty miles to the north of Tanganyika, and communicates with that lake by the river Rusizi.

troughs as Tanganyika and Nyasa, and is possibly not a very ancient sheet of water as geological age may be reckoned.

The Victoria Nyanza is in origin little but the widened course of the river Kagera, which flowed along a curved depression to the eastward of the Ruwenzori, Ankole, Mpororo, and Mfumbiro highlands. The Kagera, in fact, at the present day may be regarded as the extreme source of the Nile. It rises approximately under the fourth degree of south latitude, only a few miles from the mountainous shores of northeast Tanganyika. Many streams descending[1] from these Burundi mountains unite to form the Kagera, which, after a zigzag northerly course studded with not a few small lakes, turns, under the first degree of south latitude, abruptly to the east (with one dip to the south) and enters the Victoria Nyanza a little to the north of the first degree of south latitude. The original course of the stream evidently lay between the Sese Islands (the remains of high mountains) and the coasts of Buddu and Uganda, and then through the Rosebery Channel into the Napoleon Gulf, from which, over the Ripon Falls, it issues as the acknowledged Nile. Apart from the Kagera the great Victoria Nyanza receives few rivers of size or important volume. The only others worthy to be mentioned are the Nzoia on the northeast, the Nyando and its affluents, which form

[1] Some rising as far south as Lat. 3° 50′ S. and within ten miles of Tanganyika.

[*Face page* 302.

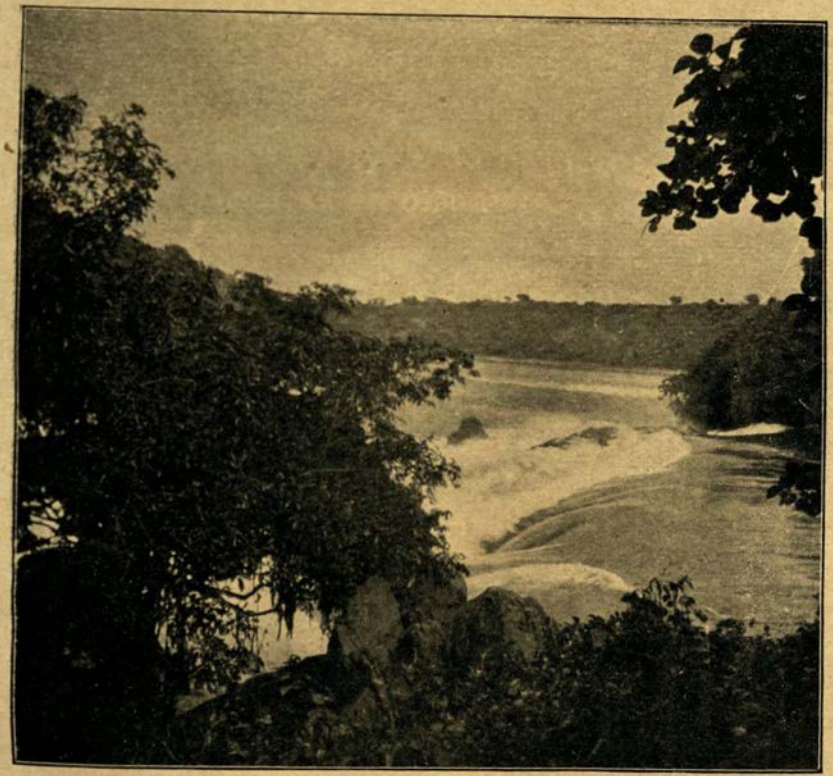
NAPOLEON GULF, LOOKING SOUTH, NEAR THE OUTLET OF THE RIPON FALLS.
[Note the isolated rocks, the remains of a former barrier and fall.]

Kavirondo Bay, and four largish rivers which enter the east coast of the lake. If the bed of the Victoria Nyanza could be raised by some earth movement about two hundred and fifty feet, it would be traversed by a converging network of river channels uniting with the Kagera and the main stream of the Nile in what is at present called Napoleon Gulf; and the geographical appearance of this dried-up lake would be very similar to the present aspect on the map of the many branches and affluents of the Nile and its tributaries which converge (south of Fashoda) at the junction of the Sobat. The surface area of the Victoria Nyanza may at one time have been considerably greater than it is at the present day, and have covered a good deal of the country of Unyamwezi. Perhaps at one time it had no outlet. The highlands forming the eastern spine of the continent and stretching along the eastern cliffs of the rift valley from Abyssinia to North Nyasa prevented its overflowing towards the Indian Ocean; while the Nyasa-Tanganyika Plateau and the mountains bordering the Tanganyika rift valley opposed any western escapement. Therefore the great inland sea created by the drainage of Unyamwezi, of the Kagera, and the rivers from the Nandi plateau was forced up against the ridge of highish land (4,000 feet), forming the existing countries of Uganda, Busoga, and Kavirondo. Attacking this ridge at its narrowest diameter, the pent-up waters of the Victoria Nyanza slowly carved their way northwards down the gorge now occupied

by the Nile at the Ripon Falls. Nearly all the drainage of the Uganda-Busoga Plateau runs northward, and does not fall into the Victoria Nyanza. The tilt of this plateau is highest round the northern shores of the Victoria Nyanza (four to five thousand feet), and falls gradually till it reaches the somewhat low level (two thousand feet) of the Upper Nile valley. The escaping waters of the Victoria Nyanza formed another great lake (Kioga-Kwania) immediately to the north on the other side of the Uganda ridge. This lake again drained off eventually to the original (Albertine) Nile. The site of its former bed is covered at the present day with vast marshes and with the straggling, many-armed lake of Kioga-Kwania.

The Albertine Nile, which some geographers think was the original main stream of the river, rises under the name of Ruchuru on the northern slopes of that great volcanic mass called the Mfumbiro mountains. These mountains have arisen in recent times in the middle of a rift valley which, seemingly, included Lake Kivu. The same fault may also contain the basin of Tanganyika, but this lies at a much lower level than Kivu. From Kivu (which no doubt once drained towards the Nile before the volcanic dam arose on the north) there would have been a gentle slope downward and northward (only partially stemmed by the extraordinary peninsula of Ruwenzori) to the basin of the Albert Nyanza.

The Ruchuru enters Lake Albert Edward, — creates that lake, in fact, — and the Albert Edward Nyanza



[*Face page* 304.

THE BIRTH OF THE VICTORIA NILE, AT THE RIPON FALLS.

[*Face page* 305.

ON LAKE ALBERT EDWARD (NORTH-WEST COAST).

a northern gulf or tributary lake known as Dweru, which receives much of the drainage of Ruwenzori, and transmits the melted snows of this Central African Caucasus to the basin of the Albert Edward. From the north end of Albert Edward the Albertine Nile issues again under the conventional name of the Semliki. The Semliki flows round the abrupt western slopes of Ruwenzori into Lake Albert Nyanza, from the northern end of which important basin (which lies at an altitude of 2,100 feet above the sea), the Mountain Nile, formed by the great twin lakes, whose existence was remotely known to the ancients, starts on its career.

The Victoria Nile enters the north end of Lake Albert, and its waters leave that lake almost uninfluenced by their volume; in fact, Lake Albert has almost become a river, the Albertine Nile, when the water coming from the Victoria Nyanza enters the river-like end of the Albert at Magungo and then abruptly turns with full stream to the north. The Mountain Nile,[1] after leaving Lake Albert, maintains a broad, lake-like character until it enters the narrow rift valley north of Nimule in the Madi country. Along this winding gorge, which exhibits some of the finest scenery of Africa, the Nile flows over nearly a hundred miles of cataracts and descends in all about five hundred feet. At Lado (in about 5°

[1] Bahr-al-Jabl, so called by the Turks and early French and German explorers, because by following it up stream they came at last to mountains after the thousand miles of marsh between Khartum and Bor.

north latitude), where it slackens and expands, the altitude of the White or Mountain Nile is about fifteen hundred feet above sea-level. At the beginning of this cataract region, north of Nimule, the Nile receives a lengthy affluent from the southeast. This is the river Asua, which drains the very mountainous but slightly arid country west of the Rudolf watershed, and north of Mount Elgon. The Asua attracted a great deal of attention in the early days of Nile exploration, owing to Speke having thought that it was an additional outlet of the Victoria Nyanza, flowing from (what is now called) Kavirondo Bay.

North of Lado the Nile enters an exceedingly marshy region, which is perhaps three hundred miles from north to south and two hundred miles from east to west. This area once certainly was the site of a lake at one time as large or larger than the Victoria Nyanza. This lake was mostly fed from the west by seven or eight important streams, which to-day, with their many tributaries, unite to form that broad western branch of the Nile known as the Bahr-al-Ghazal.[1]

The Bahr-al-Ghazal is little else than a great estuary which receives contributions from many big rivers. If, however, one of these is to be selected as the main stream on account of general consistency of direction, then the Bahr-al-Arab would be the upper waters of the Gazelle. The furthest perennial source of this

[1] "River of gazelles," i. e., antelopes, the name given to it by the Sudanese Arabs from the dense herds of game which were formerly to be seen on its marshy shores.

river is in the country of Dar Fertit, on the verge of the northernmost limits of the Congo basin, and within a few days' journey of the Upper Shari. Other very doubtful tributaries of the Bahr-al-Arab drain off what little water is not evaporated in the somewhat arid country of Darfur. The Bahr-al-Arab is fed by at least four important rivers, which flow northward from the Congo water-parting in the Nyam-nyam countries.

If volume of water is to be considered, then probably the main stream of the Bahr-al-Ghazal is the Jur or Dyur, which, in its upper waters, is known as the Sue or Swe. The Sue-Jur rises in about 4° north latitude, not many days' journey to the east of Mbomu. (The Mbomu is an important tributary of the Welle-Ubangi, which again is one of the principal tributaries of the Congo.) There is nearly continuous steam navigation up the Welle-Ubangi and the Mbomu to within a few days' journey of the Nile basin. It was up this stream (from the Congo) that Marchand and his intrepid companions travelled in 1897. From the waters of the Mbomu they carried their little steam-launch overland to the Upper Sue. They were then able to descend this river for hundreds of miles to the Bahr-al-Ghazal and the main Nile. Near Mashra-ar-Rak, at the commencement of what the Sudanese style the Bahr-al-Ghazal, the Jur is joined by another important stream called, in its lower course, the Tonj, which has many tributaries coming from the vicinity of the Welle. Nearly par-

allel with this river to the east are the Roa and the Rōl (or Yalo), both of which enter the Bahr-al-Ghazal not far from its confluence with the main Nile. There is also a river Yei or Ayi, the direction of which is not fully determined. This river, which flows nearly parallel with the main Nile, some sixty miles to the west of Lado, either enters the Rōl and thus the Bahr-al-Ghazal, or turns into the main Nile not far from the bifurcation of the Bahr-az-Ziraf.

The Bahr-az-Ziraf is an eastern branch of the main Nile, which leaves the parental river near Bor (about latitude 6° 40′ north) and flows very tortuously northwards, rejoining the White Nile about sixty miles east of Lake No (Bahr-al-Ghazal). The Ziraf or Giraffe River has other communicating channels with the main Nile, and also throws off sluggish contributions to the Khor Felus, — a western tributary of the Lower Sobat. The Giraffe River (so named by the Arabs for the many giraffes once sighted from its banks) receives from the south an important stream known (perhaps incorrectly) as the Oguelokur, which, through its component rivers the Tu and Kos, drains the northern slopes of the Lotuka Mountains.

The lower part of the Bahr-al-Ghazal is often lost in marshes or is widened into lake-like expanses such as Lake No, at the confluence of the White Nile. About a hundred miles to the east of this confluence with the Kir or main White Nile (also called, south of this point, the Bahr-al-Jabl or Mountain Nile),

there enters a very important affluent from the east, the Sobat (Baro), which is formed by a number of streams flowing from the southwestern part of the Abyssinian Empire and the vicinity of the Lake Rudolf basin.[1] After its confluence with the Sobat the White Nile flows without any important tributary for something like three hundred and fifty miles nearly due north through a country which passes from a tropical luxuriance of vegetation to the acacias and thin grass of the steppe region. The influence of the Sahara Desert, in fact, begins to make itself felt, — that desert which extends right across from the Atlantic to the Persian Gulf, interrupted only by the exceptional mountain regions of Tibesti, Darfur, Abyssinia, Yaman, and Jabl Akhdar.

At Khartum, in about 15° 40′ north latitude, the Nile receives its most important affluent, the Abai or Blue Nile (Bahr-al-Azrak). This river rises on Sagada Mountain in the Abyssinian province of Gojam, passes through the south end of Lake Tsana (a piece of water about the area of Gloucestershire) in the western part of Central Abyssinia, and, after curving to the east and south, turns west and north, and brings to the Nile (it is said) that great increase of volume in the summer time which causes the annual flooding of Lower Egypt.

[1] The Ruzi River, which rises to the west of Lake Rudolf, under the fourth degree of north latitude, was considered by the late Captain Wellby to be the southernmost source of the Sobat, but this supposition has not been verified.

The Ruzi or the two Ruzis probably join the three big streams — the Oguelokur, Tu, and Kos — which enter the Giraffe River.

Lengthy as is the course of the White Nile from the Victoria and Albert Nyanzas to Khartum, and infinitely greater though the mass of its waters should be than the volume of the Blue Nile, the stream of the White River has nevertheless been much attenuated before it reaches Khartum by the waste of its volume in the region of vast swamps lying between Fashoda on the north and Lado on the south, to say nothing also of a similar waste and evaporation of water from the deflection of the Victoria Nile into the backwaters and swamps of Kioga and Kwania. Another contribution — though a much feebler one in volume of water — comes from Abyssinia in the shape of the Atbara, which, in its upper waters, is known as the Takaze.[1] This river, during the dry season, almost ceases to flow in its lower portion, though it is flooded during the summer months from the melting of the snows and the heavy tropical rains on the northern Abyssinian mountains. The Atbara is considered by Sir Samuel Baker to contribute the principal share of the black mud which fertilises Egypt.

After the confluence of the Atbara the Nile receives no other tributary of running water during the whole remainder of its course, though in former times of far greater rainfall it was joined by streams of considerable volume flowing northeast from Kordofan. The Nile at Ambukol seems to fall into another rift valley or series of faults, along which, and over deserts of

[1] This name means "the terrible," from the violence with which it sweeps down a winding chasm from an altitude of 7,000 feet in Abyssinia to 2,500 feet in the Nubian plains.

sandstone, granite, and limestone, it pursues its way to the southeastern angle of the Mediterranean Sea. The great river divides in the extreme lower part of its course into two main branches, through which, and a number of other smaller streams and artificial canals, it pours into the sea the attenuated volume of water derived from the rainfall of Eastern Equatorial Africa, much having been already spent in useless swamps, or evaporated as it passed over a thousand miles of desert, or diverted by man to fertilise Lower Egypt.

An interesting feature of the Nile basin, and one which was known more or less vaguely to the ancient Egyptians and to the Sabæan Arabs of two thousand years ago,[1] is the existence of snow-mountains at the head-waters of the two principal rivers of the Nile system, — the White and the Blue Niles. Ruwenzori[2] was probably known to the ancients as the Mountains of the Moon. It is a mass of mainly Archæan rock some eighty miles long, which runs from northeast to southwest between Lake Albert and Lake Albert Edward. This marvellous range of snow-peaks and glaciers — a glittering panorama nearly thirty miles in length — exhibits a greater display of snow and ice (and that exactly under the equator) than can be seen anywhere else in the African continent, and is of far more imposing appearance

[1] Who transmitted the rumour to Greek travellers and merchants visiting the coasts of the Red Sea and East Africa. These again handed on the information to Greek and Roman geographers.

[2] A corruption of Runsororo.

than the isolated snow-capped summits of Kenya and Kilimanjaro (extinct volcanoes). The entire drainage of the Ruwenzori snows falls into the Albertine Nile, that is to say, into Lake Edward, or the river Semliki, which connects that lake with Albert Nyanza. The other heights crowned with perpetual snow in the basin of the Nile are the high peaks of the Samien or Simen range in northern Abyssinia, and one at least,[1] of the south Ethiopian (Kaffa) highlands. Two of the Samien peaks rise to a little over fifteen thousand feet in altitude and one (Buahit) to sixteen thousand feet. They are part of a nearly circular rim of great heights which surround Lake Tsana. To the south of Lake Tsana the mountains rise to heights of eleven, twelve, and fourteen thousand feet, but have no permanent snow. On the limits of the Nile basin, near the northeast corner of the Victoria Nyanza, stands Mount Elgon, a mighty extinct volcano, — perhaps the largest extinct volcano in the world. The crater rim of Elgon rises in places to over fourteen thousand feet in altitude, but no snow remains there permanently. Elsewhere than the Nile basin it is probable that permanent snow and ice are only to be found on the adjacent extinct volcanoes of Kenya and Kilimanjaro, and on the highest peaks of the Atlas range far away in the west of Morocco.[2]

[1] Wosho Mountain, approximately sixteen thousand feet.

[2] Snow may perhaps occasionally lie for a few days on the highest points of the volcanic Mfumbiro peaks (Sabinzi and Karisimbi), which are over thirteen thousand feet and lie almost within the limits of the

The lower valley of the Nile, the country which we know as Egypt, has undergone fluctuations of level since the beginning of the Tertiary Epoch. In the secondary ages the last five hundred miles of the Nile valley lay for a period of immense duration under the waters of the ocean, where the limestone deposits were formed. In Eocene times this limestone bed was slowly raised to the altitude of a tableland above the Mediterranean, but always cut off from the direction of the Red Sea by the continuous range of mountains which we know as the Nubian Alps. It is possible that the drainage of the Central African rift valleys and lakes and snow-mountains may, by the uprising of this tableland, have been severed from its natural escape to the Mediterranean, and that the Nile ran to waste in what is now the Libyan Desert. No doubt the Nile formed lake after lake, and the overflow from these lakes slowly bored a passage through the limestone tableland. Then in Miocene times took place a further rise in the range of the Nubian Alps and the adjoining land, which caused fractures to occur in the limestone formation. Of this the Nile took advantage, though it filled up the rifts to some extent with its debris. The Nile cut at one time a very deep bed through the limestone; but then occurred fluctuations in level, a sinking of the Nile valley which once more brought the waters of the Mediterranean far inland, and covered

Nile basin, to the south of Lake Albert Edward; and there may be a little permanent snow perhaps on the peaks over eleven thousand feet in height on the southeast of Basutoland in South Africa.

the channel of the Nile with rubble washed in by the sea. Previous to this the cracks and folds which had occurred through the upheaval of the eastern highlands had evidently caused volcanic disturbances by the water of the Nile reaching through these cracks the heated strata below. The volcanic outbursts left behind beds of basalt through which the persistent Nile again cut a channel. In the later Tertiary ages Egypt was a country of abundant rainfall, the very reverse of the absolute desert of to-day. Heavy rains carved and scarped the surface of the country and nourished a luxuriant forest. At this period the lands lying to the west of Egypt, in what is now known as the Libyan Desert, were probably a bay of the Mediterranean.

After the Pliocene Epoch, when man first began to appear on the scene, there was another lowering of the level of the Nile valley in Egypt, and the Mediterranean extended its waters perhaps to the vicinity of Assiut. At this time the Mediterranean was almost certainly connected with the Red Sea across the Isthmus of Suez. The Nile stream was probably rapid in its descent towards the extended Mediterranean, and cut a deeper and deeper channel. Then another rise of the land took place, separating the Mediterranean from the Red Sea, and sending back the Mediterranean to something like its present limits; the upheaval indeed may have made what is now the Delta of the Nile higher than it is at the present day, while the river cut its way through

[*Face page* 313.

IN THE LIBYAN DESERT.

a channel many feet deeper than the existing bed. Gradually, however, the Lower Nile became more sluggish as the land near the Mediterranean rose, and, losing its rapidity, it deposited more and more thickly the detritus brought down from Equatorial Africa, Abyssinia, and Nubia, and so raised its bed to a higher level. It has also enlarged its delta by the deposit of mud, though the fatuity of its work in this direction (in the presence of earth waves) is shown by the fluctuations which have occurred even within the last three thousand years. Not more than a thousand years ago Lake Menzaleh was a fertile and richly cultivated district.

Some time after man penetrated into Egypt (probably from the east) the countries to the west of the Lower Nile began to rise above the sea, for much of the Libyan Desert was under the Mediterranean in the Tertiary Epoch. This retreat of the sea coupled with other conditions not clearly known to us brought about a marked change in the climate of Africa north of the fifteenth degree of north latitude. The aridity of the Sahara Desert and of Arabia began to exercise a potent influence over the fate of northern Africa. Many of the lands, which as late as the human period were still covered with plentiful vegetation and were traversable by the apes, the elephants, and the antelopes of to-day, began to dry up into their present condition, an aridity which, from all we know, is increasing and extending. Only Egypt was kept alive by the beneficent stream which, so abundantly nur-

tured by the snow-mountains and equatorial rain-belt of eastern Africa, survived even its passage of a thousand miles through the blazing desert, and covered the narrow ribbon of Upper Egypt and the tassel of the Delta with an ever fruitful soil of finely triturated mud.

The Nile has a length of course of some four thousand miles measured along the windings of the channel of its main stream, — the Kagera-Victoria-Mountain-White Nile. It is still doubtful as to whether the Missouri-Mississippi in North America is longer than the Nile, and thus the longest river in length of course in the world. In any case the Nile has the pre-eminence for actual length of basin, which, in a straight line measured from the furthest source of the Kagera to Rosetta on the Mediterranean, is about 2,490 miles.

The area of the Nile basin is approximately 1,080,000 square miles.[1] This falls short of the area of the Congo basin by some 400,000 square miles. The volume of water which the Nile pours into the Mediterranean is trivial compared with the Congo's contribution to the ocean; but then the waters of the equatorial zone in East Africa are evaporated from the surface of lakes, squandered in swamps, sucked up by the desert winds, and finally are employed to irrigate Egypt; so that no comparison with the output of the Congo would give a fair idea of the catchment in the Nile basin. This, per-

[1] A little less perhaps than Dr. A. Bludan's estimate.

haps (including the annual contribution to the Nile lakes), reaches to two-thirds of the volume of water poured into the Atlantic by the Congo's single mouth.

This geographical sketch is intended to place before the reader the main features in the geography of Nile-land. It is the summing up of the results of exploration during four or five thousand years. The preceding chapters deal with the history of the way in which the Caucasian has laid bare the secrets of the Nile to the curiosity of the civilised. It is only the Caucasian race which has cared for geography in the past, — the Caucasian in all his types as Dravidian, Hamite, Semite, Iberian, and Aryan. The Mongol of Asia and America, the Negro of Papua and Africa has never cared to ascertain whence rivers flowed and whither, what lands lay beyond the ocean or the snow-peaks. Some early cross with a Caucasian race sent the Polynesian cruising about the Pacific and venturing over the Indian Ocean from Java to Madagascar; but the more purely Mongoloid brother in China and Japan did not care to trace the chain of Aleutian Islands to Alaska and America, or if he did so by accident, felt the question of no interest, sequence, or importance. Only the Caucasian, and mainly the White Caucasian, has worried about the Nile problem. He has attacked it first from the north (Hamite, Greek and Roman); then from the northeast and east (Hamite and Semite, Greek, Portuguese, and British); once more from the north (Arabs,

Turks, French, British, Germans, Italians); resolutely from the southeast (British and Germans); latterly from the southwest (British, Belgians, and French); and, finally and completely, from the north and northeast.

APPENDIX I

THE ROLL OF FAME

OF THOSE WHO STARTED ON THE NILE QUEST IN MODERN DAYS

NAME.	NATIONALITY.
Francisco Alvarez	Portuguese.
Pedro Paez	"
JERONIMO LOBO	"
Richard Pococke	British (English).
JAMES BRUCE	" (Scottish).
William Browne	" (English).
Johann Ludwig Burckhardt	Swiss.
Frederic Cailliaud	French.
Adolphe Linant de Bellefonds	Belgian.
Prokesch von Osten	German.
Eduard Rüppell	German.
Selim Bimbashi	Turk.
Thibaut	French.
D'Arnaud	"
FERDINAND WERNE	German.
Brun-Rollet	French.
Ignatz Knoblecher	Austrian.
ANTOINE THOMSON D'ABBADIE	French-Irish.
Arnaud d'Abbadie	" "
Mansfield Parkyns	British (English).
Charles T. Beke	" "
De Malzac	French.
John Petherick	British (Welsh).

NAME.	NATIONALITY.
Alfred Peney	French.
Lejean	"
Werner Munzinger	Swiss.
Theodor von Heuglin	German (Würtemberger).
Alexandrine Tinne	Dutch.
JOHN HANNING SPEKE	British (English).
JAMES AUGUSTUS GRANT	" (Scottish).
SAMUEL WHITE BAKER	" (English).
Florence Baker	Hungarian.
Giovanni Miani	Italian (Venetian).
GEORG SCHWEINFURTH	Russo-German.
Piaggia	Italian.
C. Chaillé-Long	United States.
Edouard Linant de Bellefonds	Belgian.
CHARLES GEORGE GORDON	British (English).
HENRY MORETON STANLEY	British (Welsh).
WILHELM JUNKER	Russo-German.
C. T. Wilson	British (English).
R. W. Felkin	" (Scottish).
Romolo Gessi	Italian (Levantine).
C. M. WATSON	British (English).
Mason (Bey)	United States.
Johann Maria Schuver	Dutch.
Ernest Marno	Austrian.
EMIN (EDUARD SCHNITZER)	German (Silesia).
JOSEPH THOMSON	British (Scottish).
Frederick Dealtry Lugard	" (English).
Seymour Vandeleur	" (Irish).
G. F. Scott-Elliot	" (Scottish).
Franz Stuhlmann	German.
Oscar Baumann	"
Vittorio Bottego	Italian.
JAMES R. LENNOX MACDONALD	British (Scottish).
A. H. Dyé	French.
J. B. Marchand	"

NAME.	NATIONALITY.
De Bonchamps	French.
M. S. Wellby	British (English).
H. H. Austin	" "
R. G. T. Bright	" "
C. W. Hobley	" "
Ewart Grogan	" "
J. E. S. Moore	" "
Malcolm Fergusson	" (Scottish)
Lionel Dècle	French.
Donaldson Smith	United States.
Malcolm Peake	British (Scottish).
Weld Blundell	" (English).
Benjamin Whitehouse	" "
G. W. Gwynn	" (Welsh).
Charles Delmé Radcliffe	" (English).
Oscar Neumann	German.
H. H. Wilson	British (English).
E. A. Stanton	British (English).
William Garstin	British (Irish).

This Roll includes those only who added definitely and markedly to the map of the Nile basin, not those who travelled through these countries for other than geographical purposes. It comprises: 34 British (21 English, 8 Scots, 3 Welsh, and 2 Irish); 10 Germans, 13 French, 4 Italians, 3 Portuguese, 2 Dutch, 2 Belgians, 2 Americans, 2 Swiss, 3 Austro-Hungarians, 1 Turk.

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